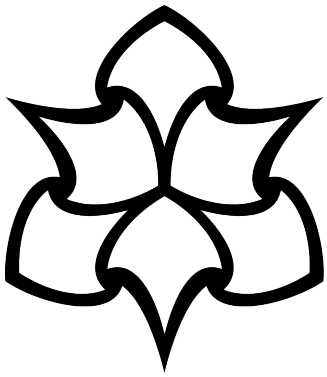

Sustainability of the PyeongChang 2018 Winter Olympics

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Sustainability of the PyeongChang 2018 Winter Olympics

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Abstract

The main aim of this study is to investigate how to deliver a sustainable legacy from the PyeongChang 2018 Winter Olympic Games. The research sets forth to look into the case of the 2018 Olympics compared to SMEs held in other states. The overall goal of this research is to find the ideal model for the sustainable legacy, which could be adopted after hosting the SME in Korea. The three research questions of the study are: 1) What legacy strategies did the two previous Olympics in Vancouver and London use to develop sustainability?; 2) What are the discrepancies in the plan for a sustainable legacy of the PyeongChang Olympics between the bid proposal and actual realisation? Why? and 3) What are the factors to consider for sustainable post-SME legacy in Korea?.

To answer the research questions, the specific methods used to collect the data are semi-structure interviews and document analysis; 10 interviews were conducted with various stakeholder of PyeongChang Olympic Games. In addition, multiple case studies are employed as a triangulation technique to enhance the reliability and validation of this study. There are three cases: the 2010 Vancouver Winter Olympic Games, the 2012 London Summer Olympic Games and the 2018 PyeongChang Winter Olympic Games.

The data collection identified all factors of the sustainability of the last three Olympics were aggregated to establish a new sustainable legacy strategy for potential sports mega-events in Korea in terms of Triple Bottom Line framework: 1) definite plans with stakeholder consultation in advance for economic, social and environmental sustainability; 2) active communication among stakeholders related to sports mega-events for economic and social sustainability; 3) efficient governance for sports events for economic, social and environmental sustainability and 4) strict management and regulation for environmental legacy for environmental sustainability.

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CHAPTER 1 General Literature Review on Sports Mega-Events

1.1 Background, Aim, and Research Questions

In the contemporary era, sports mega-events (SMEs) are at the very core of the sports industry, creating value that is articulated with other international industries, in the field of international relations. They are also thought to have a wide range of impacts on the hosting venue, city and country. Government policy makers who support SMEs tend to focus on short-term economic and socio-cultural impacts to justify the use of taxpayers' money. Indeed, previous research on SMEs has explored a wide range of economic and social impacts. However, the importance of sustainable development has burgeoned since the International Olympic Committee (IOC) established sustainable development as their new pillar, following the existing two pillars of the Olympic mission: sport and culture. The emergence of sustainable legacy raises an essential issue of how to maintain long-term legacy after hosting SMEs.

Broadly speaking, a major concern of the public is the economic impact that staging SMEs, such as the Olympic Games and the World Cup, will have on the hosting region and nation (Clark, 2008, Dwyer et al., 2004, Ritchie, 1984). Previous researchers have also concluded that SMEs have an impact on urban regeneration (Gospodini, 2002, Gold and Gold, 2008, Kassens-Noor, 2012), the enhancement of the soft power of the hosting state (Grix et al., 2015, Grix and Houlihan, 2014), social benefits (Fredline, 2005), the destination image of the hosting venue as a tourist attraction (Chalip and Costa, 2005, Brown et al., 2004), as well as on economic aspects. These various benefits of hosting SMEs could answer the question of why states invest in SMEs.

In practice, hosting an SME is normally expected to have a broad array of substantial economic impacts, including direct impacts, such as an investment impact, and indirect impacts, such as the impact on international and national tourism for 10 years on from the year of the SME (Kasimati, 2003, Preuss, 2004). For instance, the total economic benefit of the PyeongChang 2018 Winter Olympics is estimated to be 64.9 trillion KRW:

an estimate of 21.1 trillion KRW from direct impacts and 43.8 trillion KRW from indirect impacts (Hyundai Research Institute, 2011). Estimating the economic impact that SMEs have on the hosting venue is commonly undertaken to gain the support of the public and to justify the initial use of taxpayers' money in the bidding process (Chalip and Green, 2004). Preuss (2004) analysed the economic impact of every Summer Olympic Games, from Munich 1972 to Beijing 2008, and argued that the economic impact of the Olympics has a tendency to be overestimated. He found that estimations of the economic benefits and the number of tourists from the Summer Olympics had a bias towards being too optimistic. Other scholars also pointed out that the use of inappropriate multipliers leads to exaggerated estimations of economic impacts (Matheson, 2009, Porter and Fletcher, 2008).

For example, the Barcelona 1992 Olympic Games was US$61 million in debt, despite announcements for the Olympic Games to make a profit of US$3 million. In the case of the Nagano Olympics in 1998, US$11 billion of debt accrued. In 2004 Athens shelled out US$11.6 billion to stage the Games (BBC, 2004). Despite the wholehearted economic support for a successful Games, they made a US$10 billion record loss. The London 2012 Summer Olympic Games was no exception. The number of tourists in London during the Games decreased by 4 percent compared to the previous year (Office for National Statistics, 2012). Similarly, the loss from SMEs has dramatically proliferated over the last two decades due to the stiff competition among states to host SMEs and the cost of the large-scale infrastructural constructions required for SMEs.

In these negative situations, SMEs are broadly interpreted from various perspectives of society, culture, brand marketing and environment rather than focusing solely on the economic impact (Chalip, 2014). In order to overcome the limitations of the short-term impacts, the main interests of the IOC are 'legacy' and 'sustainability' from SMEs. The notion of sustainability was defined by the UN as 'forms of progress that meets the needs of the present without compromising the ability of future generations to meet their needs' (Brundtland et al., 1987). The major and core contents that are needed to ensure sustainable development are balanced and harmonious development of economic, social and environmental dimensions to ensure continuous prosperity of human society. As

interest in sustainable development has grown, the IOC's main concern has been changed, from sport and culture, to environment and sustainable sport legacy (Girginov and Hills, 2009). The IOC launched the 'Olympic Games Impact' (OGI) to measure the overall impact of the Olympic Games on the hosting city in the year 2000. This research was designed to evaluate the economic, social and environmental sustainability of Olympic Games by a total of more than 150 research indicators over ten years (Furrer, 2002, IOC, 2006). Jacques Rogge, who served as the former president of IOC, also emphasised the importance of long-term impact from Olympic legacy.

> Legacy has not always been at the forefront of Olympic planning, however. Many years ago it was sometimes more of an afterthought to Games organisers; a concept often left to chance. Some host cities clearly fared better than others in this regard. The IOC recognised that for a city to truly leverage the Olympic Games as a catalyst for sustainable renewal, it had to be planned for from the very beginning. This is why we now require all bid cities to define their objectives and long-term strategies from the very moment they become an applicant city. So that if successful in the bid, the Games organisers have a clear vision for seven years of Olympic preparation and beyond (Telegragh, 2012:online).

From a long-term point of view, a sustainable legacy from SMEs is a vital component for the hosting state to ensure successful hosting from the bidding process after closing. Regarding global trends, the IOC questionnaire includes the Olympic Games' concept and legacy as the first theme. It also requests that the hosting city or state make detailed plans for a sustainable legacy development of the venue (IOC, 2004). Hence, the potential cities and states should present clear long-term vision and legacy through their bidding book. Indeed, the Vancouver 2010 Winter Olympic Games and London 2012 Summer Olympic Games were the first official Winter and Summer Olympics to adopt sustainability in the bidding process. Since the IOC considered sustainability an essential part of the Olympic Games, it has been an obligation for all Olympic candidate cities to submit a concrete legacy plan in their bid file, which could promote the sustainability of Olympic Games. In addition, they were also the first Winter and Summer Olympic Games to publish an obligatory Olympic Games Impact Study.

Accordingly, the PyeongChang 2018 Winter Olympic Games were the first sports mega-event to be held in South Korea, which considered the Games' sustainability throughout its process. Since hosting the Seoul Olympics in 1988, Korea has developed and become one of the major sports powers in Asia. The Games offered Korea a global platform and contributed to the development of Korea economically, socially and politically (Ok and Ha, 2008). Since then, Korea has not only successfully hosted global sports mega-events, such as the 2002 Korea-Japan World Cup and the IAAF World Championships in Daegu 2011, but hosted the PyeongChang 2018 Winter Olympics, thereby building a worldwide reputation as the hosting country of the SME. However, with regards to Korean sports policy, while it strived through diplomatic and economic means to host SMEs in order to improve the state's national prestige, the Games left many underutilised or short lasting legacies as 'white elephants', which usually refers to underutilised sporting facilities after the Games have finished, despite massive initial costs for staging the events from public funds. Although in 1988 the Seoul Olympic Stadium, which was the main stadium for Seoul Olympics, was used for various subsequent small to medium-sized events and was also utilised as the representative stadium for the Korean national football team, most of the time it was used for one-off events. Despite the geographical advantage of being located in the centre of Seoul, the value of it has gradually deteriorated since the Olympics. Moreover, the stadium has accumulated annual losses of approximately US$2 million. Despite this, the Seoul 1988 Games were successful in every respect, as noted above. In this sense, the previous SMEs in South Korea had not much to do with sustainability and sustainable development. This means that the PyeongChang 2018 Winter Olympic Games was the first SME held in South Korea to consider sustainability a core principle for a successful Olympic Games, as well as to be subject to sustainability regarding global trends.

After three rounds of voting, it was confirmed that PyeongChang, Gangwon Province, which is commonly known as the Alps of Korea, was awarded the right to host the 2018 Winter Olympics. This means that Korea became the 7th country to achieve a sports grand slam by hosting both Summer and Winter Olympic Games, following the USA, France, Germany, Italy, Japan and Canada. The PyeongChang Organising Committee for the 2018 Olympic & Paralympic Winter Games (POCOG) has announced the effects of

hosting the Games and has established a benchmark for national development and a sustainable regional legacy. In their sustainability framework report, the importance of sustainability is also emphasised.

> The sustainability vision of PyeongChang 2018 is 'creating a new horizon for sustainable PyeongChang Winter Olympics and Paralympics in 2018; Furthering benefits to human and nature …. To translate the Games' vision into concrete action plans, POCOG set up the four key objects of the Games, i.e. economic, cultural, environmental and peaceful Olympics. The Game's vision provides important guidelines to achieve each of them (POCOG, 2015:15).

Given that PyeongChang was chosen to host the Games on its third attempt, it is clear that PyeongChang's legacy plan for sustainability has been amended, modified and supplemented since their bid for the 2010 Winter Olympics. According to Kim (2019a), previous evaluation reports from the IOC were positive about the sustainability plan for all three of PyeongChang's Olympic bids. In that sense, PyeongChang's plan for a sustainable Olympic legacy can be seen as a more systematic and time-consuming one than that of any other Olympics.

As has been demonstrated above, the sustainability of SMEs has been growing year by year, and will continue to grow in importance for both host country and potential bidding cities. Given that the sustainability from SMEs has become an essential element, from the bidding stage to closing, sustainability will not only have an essential role in the selection of the host countries, but also improvement in the sustainability of SMEs itself that many countries will hope to host SMEs in future. The main practical implication of this study, therefore, is to provide future host cities with information to help create more realistic and practical plans for a sustainable legacy in their bid proposals. Although there has been a number of studies conducted to analyse the sustainability of SMEs, a relatively small number of these have been conducted to analyse the process of a host city's sustainable legacy plan in reality. From this perspective, analysing the process of implementing the sustainability plan of the PyeongChang Olympics, from bidding book to actual implementation, would be an academic contribution to developing the sustainability of SMEs.

The main aim of this study is to investigate how to deliver a sustainable legacy from the PyeongChang 2018 Winter Olympic Games. The research sets forth to look into the case of the 2018 Olympics compared to SMEs held in other states. The overall goal of this research is to find the ideal model for the sustainable legacy, which could be adopted after hosting the SME in Korea.

In working towards finding an ideal type of sustainable legacy, this study explores the following research questions:

1. What legacy strategies did the two previous Olympics in Vancouver and London use to develop sustainability?

2. What are the discrepancies in the plan for a sustainable legacy of the PyeongChang Olympics between the bid proposal and actual realisation?

2a. Why did these discrepancies occur?

3. What are the factors to consider for a sustainable post-SME legacy in Korea?

1.2 General Features of Sports Mega-Events and Legacy

The purpose of this chapter is to explain general concepts used in the study of SMEs. Throughout history, sport has changed dramatically, particularly during the 20th century. Capitalism was instrumental in popularising and commercialising sport as a novel mechanism (Nicholson and Hoye, 2008). Thus, sport events, professional sport, sport broadcasting and media, are indispensable as an essence of capitalism in modern sport. These common bonds extend further the ability to generate capital for the purpose of commercialising sport (Lenskyj, 2000). In particular, SMEs offer the opportunity to easily be converted into capital. Major states and cities around the world have constantly held big and small sporting events. However, competition among states to host SMEs has become less intense and slowing down recently. While the number of states to host the 2004 Athens Olympic Games was eleven applicants, the number of final bids to host 2024 Summer Olympic Games was two countries; Paris and Los Angeles. The three countries that tried to host 2024 Olympic Games (Rome, Budapest and Hamburg) withdrew their bids due to the fiscal problems or the public opposition decided through a referendum. This means that the variety of objectives and expected impacts of SMEs no longer appeal to countries that hope to host SMEs.

This chapter is divided into two parts. The first section of this chapter describes the general features of SMEs and its legacies (i.e. definitions, types and characteristics). The second part explores the wide range of legacies of SMEs on the hosting community, such as residents, government and the hosting country, from different perspectives.

1.2.1 A Definition of a Sports Mega-Events

In general, large-scale events such as the Summer and Winter Olympic Games, the World Cup and Expos are called mega-events. However, in order for an event to become a mega-events, there have been different points of view on how to limit a range of mega-events (for a restricted list of definitions of a mega-events see Table 1.1. As with many academic discussions about the definition of mega-events, most researchers focus mainly on scale (the number of visitors), period (short-term or long-term) and on the effects of the mega-events. With regards to the scale of mega-events, Getz (1997) claims that the term, ‘mega-

event', refers to the events which attract more than a million visitors. Regarding the period over which a mega-event takes place, a mega-event is a short-term event which has an impact socially and economically (Hiller, 1998).

Most scholars, however, when defining the range of mega-events, consider character, ripple effect and the scale of the events. Roche (2000) argues that mega-events are large scale events at international level, which have striking characteristics to appeal to the public, or are short-term events, which have continuous, long-term impacts on the hosting city. Economic ripple effect is the most important criterion of mega-events (Fredline and Faulkner, 2000, Barker et al., 2001, Twynam and Johnston, 2004, Gratton and Preuss, 2008). They are typically organised by variable combinations of national governmental and international non-governmental organisations and thus, can be said to be essential elements in 'official' versions of public culture. Horne and Manzenreiter (2006) point out that mega-events can be viewed in two main respects: first, hosting states or cities undergo significant alterations through the events; and second, mega-events are subject to extensive media exposure and views from numerous nations. Malfas et al. (2004) argue that mega-events should contain two characteristics: 1) internal characteristics, such as its duration and scale (i.e. the number of participants and spectators, the number of individual sessions and levels of organisation complexity) and 2) external characteristics, which mainly take account of its media and tourism attractiveness and its impact on the hosting cities. Müller (2015c) claims that mega-events have four key dimensions: 1) a large number of visitors; 2) have a largely mediated reach; 3) come with a large cost and 4) have large impacts on the environment built and on the population.

Table 1 1 Definitions of Mega-Event

Source	Definition
Ritchie (1984:2)	'Major one-time or recurring events of limited duration, developed primarily to enhance the awareness, appeal and profitability of a tourism destination in the short and/or long terms'
Hiller (2000:182)	'A mega-event rotates among cities, occurs intermittently and generates intense global media exposure specifically for the duration of the event. … normally sponsored by a body outside of

	the city or country in which the event is hosted that establishes the parameters and ground rules for the event.'
Roche (2000:1)	'Mega-events are large-scale cultural (including commercial and sporting) events which have a dramatic character, mass popular appeal, and international significance.'
Getz (2008:408)	'Mega-events are typically global in their orientation and require a competitive bid to 'win' them as a one-time event for a particular place.'
Gold and Gold (2010:1)	'Cultural and sporting festivals that achieve sufficient size and scope to affect whole economies and to receive sustained global media attention.'
Mills and Rosentraub (2013:239)	'Significant national or global competitions that produce extensive levels of participation and media coverage and that often require large public investments into both event infrastructure for example stadiums to hold the events and general infrastructure, such as roadways, hosing, or mass transit systems.'
Müller (2015c:629)	'Mega-events are ambulatory occasions of a fixed duration that (a) attract a large number of visitor, (b) have large mediated reach, (c) come with large costs and (d) have large impacts on the built environment and the population.'

1.2.2 Types of Mega-Events

The classification of mega-events varies among scholars, as there are varying definitions of mega-events. Mega-events may be variously classified according to the scale and impact of the event, its characteristics and the organisers, but can also largely be divided into two forms: external characteristics (i.e. scale of events and organisations) and internal characteristics. Allen et al. (2005) classify mega-events into four types: local events, which are at the lowest level, major events, hallmark events and mega-events. This is determined by the scale of the events and the influences, which are the participants, the media, and the infrastructure of the events. Hall (1989) sorts mega-events into four types

according to the target market and a scale of events: community events, hallmark events, special events and mega-events, as suggested in Table 1.2. Other scholars classify mega-events according to internal characteristics. Ritchie (1984) classifies mega-events into seven types, according to internal characteristics: sport events, expos, festivals, religious and cultural events and political events.

Table 1 2 Characteristics of Short-term Staged Events

scale of Impact	Description of Event			Examples	Target Market	Major Level of Public Financial Involvement	Organization and Leadership	Economic and Social Impacts of Event on Host Community
High	Hallmark Event	Special Event	Mega-Event	Olympics / World Fairs	International	National	Establishment of special authorities by government	International corporate investment in event and facilities
				Grand Prix / America's Cup	International / National	National / Regional	Coordination between the various levels of government	Event may be used for urban redevelopment and tourism promotion
				Australia Games	National	National / Regional	Limited local involvement, leadership assumed by government	Leakage of profits from host community
				Festival of Perth	Regional (Provincial / State)	Regional / Local	Major role for regional tourism bodies, local business, and government	Corporate investment significant for running of event

		Wellesley Apple and Butter Festival	Local	Local	Leadership and organization provided from within host community	Economic benefits accrue to host community
Low	Community Event	Community Fetes and Street Parties	Event designed for local consumption	Minimal local government involvement	Local control	Strengthening of local identify

(Source: Hall, 1989:265)

In contrast to Hall's classification, Müller (2015c) has developed a classification scheme for mega-events with four dimensions; visitor attraction, mediated reach, cost and urban transformation, as seen in Table 1.3. Findings from the study propose that sport events are divided into three different sized classes: major events, mega-events and giga-events. He also expects that:

> Giga-events are a recently emerging and still rather rare class of the largest events in the world. The Olympic Games in Beijing in 2008 and in London in 2012 and the World Cup 2014 would fall in this category. Yet, if the upward trend in size continues, giga-events might well become the norm rather than the exception (Müller, 2015c:638).

Table 1 3 Size Classification of Selected Events

Class	Event	Location	Total	Visitor attractiveness	Mediated reach	Cost	Transfor-mation
Giga	Olympic Summer Games	London 2012	11	3	3	3	2
Mega	Euro	Ukraine/Poland 2012	10	2	2	3	3
	Football World Cup	South Africa 2010	10	3	3	2	2
	Expo	Shanghai 2010	9	3	0	3	3

Major	Asian Games	Guangzhou 2010	8	2	0	3	3
	Olympic Winter Games	Vancouver 2010	7	2	2	2	1
	Commonwealth Games	Delhi 2010	6	2	0	2	2
	Universiade	Kazan 2013	5	1	0	2	2
	Pan American Games	Guadalajara 2011	1	1	0	0	0
	APEC Summit	Vladivostok 2012	6	0	0	3	3
	European Capital of Culture	Liverpool 2008	5	3	0	0	2
	Rugby World Cup	New Zealand 2011	4	2	2e	0	0
	Super Bowl	New Orleans 2013	1	0	1	0	0

Notes: Visitor attractiveness (Number of tickets sold); 0 = <.5 million, 1 = >.5 million, 2 = >1 million, 3 = >3 million. Mediated reach (Value of broadcast rights); 0 = <USD .1 billion, 1 = >USD .1 billion, 2 = >USD 1 billion, 3 = >USD 2 billion. Cost (Total cost); 0 = <USD 1 billion, 1 = >USD 1 billion, 2 = >USD 5 billion, 3 = >USD 10 billion. Transformation (Capital investment); 0 = <USD 1 billion, 1 = >USD 1 billion, 2 = >USD 5 billion, 3 = >USD 10 billion. E = estimation.

(Source:Müller, 2015c:635-636)

1.2.3 Characteristics of Sports Mega-Events

First of all, mega-events have a political characteristic, which is led at government level. The organisation, that is exclusively responsible for the mega-events, is established by the central government. Alternatively, a consultative group, between governments, is formed in order to hold the mega-events successfully (Hall, 1989). Mega-events can be through a political approach, including a game of power among stakeholders (Hall, 1989, Roche, 1994, 2000). Ritchie (1984) shows that there are political objectives behind efforts

to attract and hold mega-events. These political objectives are a major driving force for the mega-events that are held. Not only do governments, politicians, and government officials enhance their political image, utilising high media exposure, it also serves as an opportunity to strengthen their power. These characteristics of mega-events consolidate political benefits and the hegemony of the elite (Ritchie, 1984).

Secondly, mega-events have diversity of participation. O'Brien (2006) suggests that it is essential to understand the depth and diversity of the network of stakeholders (which includes hosts, management organisations, sponsors, relevant private organisations, media and advisory groups) in the decision-making process and throughout the mega-event planning process. Reid and Arcodia (2002) conclude that mega-events are an opportunity to promote cooperation among stakeholders, in respect to tourism developments, due to the participation of people involved in the process of securing financial and non-financial support for the mega-events.

Thirdly, mega-events are international in nature and the hope is that they increase the influx of international tourists because of worldwide attention to the venue (Roche, 1994, Jago and Shaw, 1998, Witt, 1988, Getz, 1997). Also, the majority of the mega-events are subsequently held among member states through international organisations and take place through the official bidding process. In the bidding process, countries that are applying to host mega-events mobilise their diplomatic ability to maintain an amicable relationship with international organisations. They can also enhance their national image and prestige all over the world through aggressive promotions and activities for attracting (Getz, 1997, Witt, 1988).

1.2.4 Definitions of Legacy from Sports Mega-Events

All sports mega-events have a global impact on the hosting state, in many respects, and on the legacy left behind after the events are staged. Planning for legacy has played an important role in deciding on hosting venues over the last few decades. The IOC Charter states that their principal objective is 'to promote positive legacy from the Olympic Games to the host cities and the host countries' (IOC, 2007: 27). Thus, all potential host

cities and states need to submit their candidature file, including detailed plans for the Olympic Games concepts and plans for the legacy for its citizens, city and country.

However, 'legacy' is a difficult term to define as it can have multiple meanings in different countries and across cultures. As the importance of building legacies is growing, the IOC held a symposium in 2002 called, 'The Legacy of the Olympic Games: 1984-2000'. However, when attempting to define legacy, they failed to reach a consensus among the participants due to the limitation of different languages and cultures (Moragas, 2003, Preuss, 2007). For example, legacy is a somewhat ambiguous term in the English language because the word has many definitions. The term legacy alludes to anything left over after an event, including positive or negative things.

The definition of the term 'legacy', in regards to SMEs, has been an unclear, elusive and problematic word (Cashman, 2006). There also was a lack of agreement on the terminology and on the approach to measuring legacy among scholars. From a tourism and event management context, Getz (1991:340) argues that legacy is bestowed automatically.

> The physical, financial, psychological, or social benefits that are permanently bestowed on a community or region by virtue of hosting an event. The term can also be used to describe negative impact, such as debt, displacement of people, pollution, and so on.

Preuss (2007:211) defined legacy as, 'irrespective of the time production and space, legacy is all planned and unplanned, positive and negative, tangible and intangible structure created for and by a sport event that remains longer than the event itself'. He also attempts to conceptualise multi-dimensions of legacy through a 'legacy cube', which consists of eight smaller cubes (Figure 1.1).

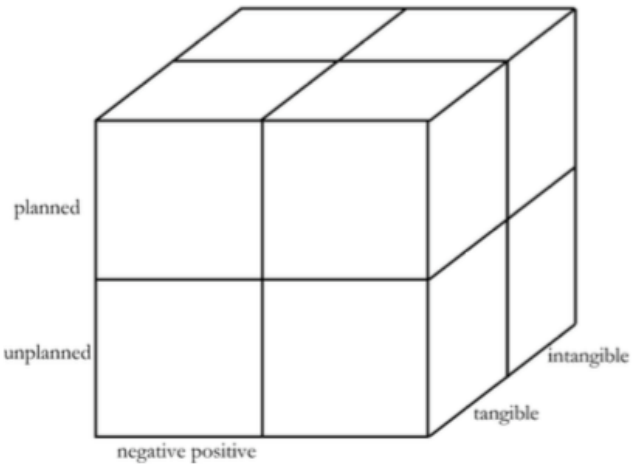


Figure 1.1 Legacy Cube Legacy Cube (Source: Preuss, 2007: 211)

However, the conceptual definitions of legacy are limited, in that they are comprehensive or intentionally immoderate. It can be explained from two aspects. Firstly, in terms of assets, it is difficult to describe intangible legacies comprehensively, such as international image and knowledge generated by SMEs. Secondly, the meaning of 'remain' has a limitation, which excludes unplanned and negative aspects of legacies (Preuss, 2006). In this sense, the crucial point of Preuss's model to notice is that he included negative legacies in definition of the legacy while many of the pre-event research on legacy focused on positive legacies. He also suggested the need to consider a 'net' mega event legacy in terms of aspects of re-distributions and crowding-out.

1.2.5 Typological Frameworks

It is widely acknowledged that legacy is recognised as a long lasting impact on the hosting city from staging events and is divided into hard and soft legacy. David Cameron, who served as the Prime Minister of the United Kingdom from 2010-2016, was interviewed about the legacy from the London 2012 Olympics.

> … What's so great about these Games is that we've built not just for the coming weeks – but the coming decades. When all the fireworks have died down and the athletes have gone home there is going to be a genuine legacy. A physical legacy – with a new quarter of London for people to live and work in. An economic legacy – with business getting a big international boost to trade. And a sporting legacy – with people all over the country

> inspired to get active and get into sport (Politics.co.uk, 2012:online).

A strong emphasis on legacy is shown in the quote above. The concept of legacies from SMEs has been developed due to the variety of perspectives that legacies are considered from. To measure the overall impact of each edition of the Olympics, the IOC launched the Olympic Games Impact (OGI), which was modified from the Olympic Games Global Impact (OGGI) in 2007 (IOC, 2006). The main aims of the OGI are: 1) to measure the objective and scientific impact of the Olympics on the hosting states, 2) to transfer Olympic strategy for potential hosting cities and states, based on databases from previous Olympics, 3) to discern and maximise positive legacies, and 4) to generate a comparable benchmark (IOC, 2006). To improve the evaluation of each edition of the Olympic Games, the OGI research uses a Triple Bottom Line (TBL) approach as a set of measurable indicators, which is an accounting framework with three parts: economic, social and environmental. The OGI research covers a period of twelve years (originally 11 years when it was called OGGI) and each Organising Committee for the Olympic Games (OCOG) is required to submit their study in a series of four reports. The OGI study commences two years before the election of the host city by IOC members and ends three years after having staged the Games. Specifically, the whole process of the OGI research is comprised of four phases: 1) conception; 2) organisation; 3) staging and 4) closure.

However, despite all of the research to measure the impacts and legacies of SMEs, a review of the typology of legacy categorisation must take precedence. According to Keogh (2009), the legacy of SMEs can be divided into two types: categorical types and conceptual types. Within the categorical types, legacy is further classified into five categories: 1) economic; 2) social; 3) health / sport; 4) environmental and 5) cultural. According to conceptual types, legacy is also classified into seven categories: 1) governance; 2) hard; 3) soft; 4) direct; 5) indirect; 6) visible / tangible and 7) invisible / intangible legacies.

SMEs are said to create many economic, social and environmental legacies for the hosting city and state. While some legacies, experienced before hosting the events, were a benefit, nothing could be found to identify some legacies for years after finishing the events (IOC, 2015b). Table 1.4 provides a typology of legacies from SME through early studies.

Typological frameworks of early studies, such as these, are included in about 150 measurement indicators for economic, social and environmental dimensions, designed by the OGI (Tziralis et al., 2006). However, Cashman's typology has a limitation, in that public life, politics and culture are in the same categorisation. In addition, symbols, memory and history are categorised separately, even though those legacies are analogous to cultural legacy, which categorises with public life and politics. Furthermore, in Preuss's typology, he does not mention aspects of economic and sporting legacy.

Table 1 4 Typology of Legacies from Sports Mega-Events

Source	Typology of legacies from SME
Chappelet (2002)	(1) tourism and economic; (2) infrastructure; (3) sports facilities; (4) urban and natural environment; (5) socio-cultural and communications
Cashman (2006)	(1) economic; (2) infrastructure; (3) information and education; (4) public life, politics and culture; (5) sport; (6) symbols, memory and history
Preuss (2007)	(1) infrastructure; (2) knowledge; (3) image; (4) emotions; (5) networks; (6) culture
IOC (2015b)	(1) socio-cultural; (2) economic; (3) urban; (4) sporting; (5) environmental legacies

The debate has also centred on the duration of legacies from SMEs. It is widely acknowledged that SMEs have continuous impacts on the hosting city and state. Therefore, the pivotal issues are how long the impacts of SMEs last and how long the research for legacies is conducted to measure the exact impact after the events(Gratton and Preuss, 2008, Hiller, 2000, Chalip et al., 2003). As mentioned above, although the OGI research covers for twelve years, including two years before the host city election and three years after finishing the Olympic Games, a chief concern about legacies created by SMEs is the duration of time that legacy studies take place after the Games and whether or not three years is enough.

Table 1 5 Typology of Legacy

Legacy	Definition	Example
Socio-cultural	Encompass the practices by which society is governed and organized as well as the behavioural and attitudinal changes that can occur based on inspiration derived from hosting the Olympic Games.	Arts programmes/ Employment/ Youth/ Education/ Volunteerism/ Food / Health care services/ Housing/Sports programmes & development/ community & national pride/ Cultural awareness
Economic	Encompass all the economically-related investment, spending and revenue generation effects of hosting the Olympic Games on the host city, region and country	Tourism/ Employment and skills development/ Business opportunities/ Real estate & housing/ Public investment/ Event management/ Global image of the city & country
Urban	Encompass a city's buildings, landscape, transport service and network	Demography/ Venues/ Transport/ Transportation infrastructure/ Technology (telecommunications, information systems, etc)
Sporting	Encompass the legacies and impacts of the Olympic period that facilitate the promotion and development of sport in the host city, region and country.	Venues, Event management
Environmental	Encompass everything associated with the environment-related management, techniques and technologies that surround an organism, including both natural human-built elements.	Sustainability & sustainable development/ Environment & environmental development/ Green venues/ Air, Water and grounds quality/ Waste management/ energy and natural resource/ Biodiversity/ Carbon footprint

(Source:IOC, 2015b:4)

1.3 Legacies of Sports Mega-Events

'Mega-event' is a term used to refer to large scale tourism events, such as the Olympics, the FIFA World Cup, the World Trading Exhibition, various cultural festivals and so on. SMEs such as the Olympics, the World Cup and so on, which are large in size and have global impact, gives political, diplomatic, economic and socio-cultural impacts. They have also become one of the best opportunities for bringing humankind across the world and giving positive influences in order to improve the national image, thereby increasing their international status. As matter of fact, many cities that have hosted SMEs have expected qualitative and quantitative economic growth of the local community through social overhead capital, expansion of local infrastructure and through the construction of the stadium facilities (Kaplanidou and Karadakis, 2010, Smith, 2014). Despite this, they are experiencing economic recession in the local community and long-term depression due to reduction in investment after the closing, according to the post-Olympic economic depression, also known as post-Olympic slump and the failure to well utilise the infrastructure afterwards. For example, the Montreal 1976 Olympic Games was a representative failure of hosting the Olympic Games. After the undeniable cultural success of Expo Montreal 1967 (Levine, 2003), they decided to host the Summer Olympic Games. Even though it was initially budgeted at US$120 million, and was planned to be self-funded by the city through the profits from the Olympic Games, a series of problems, such as financial mismanagement, construction delays, go-slow and design flaws of the Olympic stadium, caused an increase in the cost of staging the Olympic Games to $922 million by the time it was hosted (Johnston, 1999). Furthermore, despite pouring an additional US$537 million into their Olympic legacies upon the closing of the Olympic Games, the Montreal stadium faced difficulties, notably structural weakness, due to negligent post-management. Beyond these capital expenditures, the stadium has never made a profit and has accumulated losses of US$170 million annually since 1977 (Levesque, 2001). This example of the Montreal Olympic Games arouses considerable attention from hosting cities, as it highlights the risks of post-management failures in Olympic legacy. Despite the risks of sports mega-events, numerous states join a bidding

process to be selected as a host state for the SMEs.

Notwithstanding these risks, why do states invest in SMEs? SMEs have received constant attention from politicians, economic leaders, and sports administrators in many countries, as it has massive and tangible economic effects as well as potentialities of intangible effects, such as social integration (Malfas et al., 2004). Additionally, SMEs such as the Olympics and the World Cup become global festivals as cultural, economic and political effects of the SMEs increase rapidly through the media. Similarly, the reason why lots of states and cities hope to host SMEs is that they expect various ripple effects and to take a broad range of benefits. For these reasons, researchers have been focusing on the positive and on adverse effects of SMEs. Recently, research on mega-events or festivals has focused on visitors' motivation, satisfaction (Fourie and Santana-Gallego, 2011, King et al., 2015) and soft power (Grix et al., 2015), as well as on economic impact (Rose and Spiegel, 2011), despite the importance of socio-cultural (Kaplanidou et al., 2013). There are difficulties in accurately measuring the effects of SMEs because those impacts are indirect and long-term (Gratton and Preuss, 2008).

1.3.1 Economic Legacy

According to most studies, SMEs make an economic impacts, like the effects of infrastructure investments, as well as an increase in tax revenues, employment and tourism revenues (Ritchie, 1984, Matheson, 2006, Matheson, 2009). Also, one of the major catalysts for improving the economy of the hosting city and state are astronomical host budgets, which build a good amount of notable infrastructures (Fredline et al., 2003, Kaplanidou and Karadakis, 2010, Lee et al., 2005, Swart and Bob, 2007). The economic impact of SMEs has a tendency to be assessed regarding a multiplier effect. The final economic impacts are divided into three major elements; direct effect, indirect effect and induced effect (Kasimati, 2003). The direct effect is the first economic benefit of visitor or tourist spending. The money is directly injected into local economies, such as food, accommodation, transport and game tickets. The indirect effect is the ripple effect from the direct effect, whereby the first sum of money is circulated in the local economy. Induced effect means further ripple effects. Employees, who work in businesses related

to direct impact, spend their money in other businesses in the hosting venue. The indirect and induced effects are usually called secondary impacts (Crompton, 1995).

As the size of the SMEs has increased, which is called a shift towards 'gigantism' (Chappelet, 2014), the total operating costs of hosting the SMEs has also increased with time. The 2008 Beijing Olympic Games set a record for being the most expensive Olympic Games in the Olympic history. As it was the first SME to take place in China, the Chinese government invested over US$40 billion in the construction of the Olympic infrastructure from 2002 to 2006, which changed the urban site of Beijing (Sands, 2008). The total cost was more than twice the cost of hosting the 2004 Athens Olympics (US$ 15 Billion). Despite the unlimited resources from the Chinese government, the total cost of hosting the 2014 Sochi Winter Olympics exceeded the total cost of the 2008 Beijing Olympics. Sochi spent US$55 billion on staging their Olympics, having increased over four times from the US$12 billion that they had originally planned at the bidding process (Müller, 2015a), even though the majority of the budget, almost 80 percent, was on non-sporting infrastructure as part of a thorough overhaul of Sochi (Golubchikov, 2016).

In recent years, a major consideration when choosing a hosting venue for SMEs during the bidding process has been the economic potential for boosting their economic situation in a particular context (Clark, 2008). The economic benefits accruing from SMEs make the bidding process more competitive among the states hoping host the SME. For the reason of competing with other countries, the governments of states, which hope to host the SME, feel a keen necessity to precisely measure the economic impact that the SME will have on their region. The measured economic impact is commonly used as a grounds for gathering support from the citizens, as well as for justification for appropriating the initial budget and operating expenses (Chalip et al., 2003).

The approaches used to assess the economic impact of SMEs are mainly divided into ex-ante analysis and ex-post analysis. The ex-ante analysis is used to estimate the whole economic benefit that the host is accruing from the SME. The ex-ante analysis is conducted using input-output (I-O) analysis or Computable General Equilibrium (CGE) models. The I-O analysis, which has been used in tourism studies (Stanford and McCann, 1979) and sport (Burns et al., 1986), was the most common method used to estimate the

impacts of events, like income and employment and the economic impacts of tourism, on regions (Witt, 1987, West, 1993, Adams and Parmenter, 1993). According to previous studies using I-O analysis, the economic impacts of the Los Angeles 1984 Summer Olympics were US$2.3 billion and the creation of 73,375 jobs in Southern California (Kasimati, 2003). Kim et al. (1989) analysed the economic benefit accrued from the Seoul 1988 Summer Olympics and found an economic impact of US$1.6 billion and 336,000 new jobs in South Korea. However, the approaches have serious limitations, in that the assumptions of input-output models are unrealistic (Dwyer et al., 2000). The CGE models that are extensively used now are more realistic and sophisticated. These models make more reasonable assumptions, than the I-O analysis, to assess the economic impacts of a broad range of changes and policies among most sectors (Dwyer et al., 2004). For these reasons, it is unsurprising that CGE models are commonly considered to be the most powerful method across the world, especially in Australia, Canada, the USA, the UK and China (Blake, 2000, 2001, Sugiyarto et al., 2002, Zhou et al., 1997, Blake et al., 2003, Li et al., 2013, Pham et al., 2019). Blake (2005:68) uses the CGE model to estimate the economic impact of the London 2012 Summer Olympics.

> The London 2012 Olympics would have an overall positive effect on the UK and London economies, with an increase in GDP over the 2005-2016 period of £1,936 million and an additional 8,164 full-time equivalent jobs created for the UK. The impacts are concentrated in 2012 (£1,067 million GDP and 3,261 FTE jobs) and in the post-Games period 2013-2016 (£622 million GDP and 1,948 additional FTE jobs).

On the other hand, questions have been raised about the reliability of the ex-ante analysis, which tends to forecast the economic impact of SMEs positively. The ex-post analysis examines the economic impact after finishing the SME, excluding other factors which could have an influence on the economic impact at the same time (Kasimati, 2003). The economic impact of the Los Angeles 1984 Summer Olympics and the Atlanta 1996 Summer Olympics was entirely short-term, especially concerning unemployment rates (Baade and Matheson, 2002).

Due to the economic impacts, the majority of people normally believe that the economic effects of SMEs contribute to local development. Mules and Faulkner (1996) point out that major SMEs cannot achieve economic success and, therefore, are unlikely to turn

into profit beyond a break-even point. As a result of research on the Olympics from 1984 to 2004, the economic effects of the Olympics are overstated (Kasimati, 2003). Horne and Manzenreiter (2006) argue that the general reasons why states invest in SMEs are for economic benefits and international demonstration effects, but also points out that SMEs are not a panacea for social and economic problems because there is a discrepancy in the economic profits of SMEs. For these reasons, Gratton et al. (2006) suggests that the analysis of economic impacts on SMEs needs to be stricter. The ripple effects of SMEs have focused extremely on an economic point of view. There are dangers of not only overlooking the negative economic impact on SMEs but also dealing less with the socio-cultural and environmental impacts (Walo et al., 1996).

Regarding tourism, SMEs enhance the development of the tourist industry, as well as awareness of venues as a tourist attraction (Ritchie and Smith, 1991). SMEs are one of the significant reasons why people determine the host city or state as a destination. According to earlier studies concerning tourism, events become an essential requisite of tourism marketing (Getz, 1997, Hall, 1992, Berg et al., 2002) and leads to an increase in the number of visitors (Light, 1996, Ritchie, 1984). As tourism develops, events are being used to decrease the erratic influx of tourists caused by seasonality (Higham and Hinch, 2002), promote high-speed development of tourism (Chacko and Schaffer, 1993, Bramwell, 1997b), as well as to strengthen the competitive power of tourism internationally (Roche, 1994, Brown et al., 2002).

Firstly, in terms of the increase in the number of tourists caused by SMEs, in the case of the South Africa 2010 World Cup, which was the first World Cup in the African continent, a total of 309,554 inbound tourists flocked to South Africa for the main purpose of attending the World Cup during the period that the event was held, from the 11th Jun to the 12th July in 2010 (FIFA, 2010). Moreover, the South Africa 2010 World Cup was exposed to international visibility through global broadcasting. At least 400 broadcasting networks and 15,000 journalists attended the event from across the globe (Emmett, 2010), and more than 700 million viewers watched the final of the FIFA World Cup Final on television (Cape Town Tourism, 2010). According to Rose and Spiegel (2011), states get benefits from joining the bidding process unless they secure a right to host the SME. In

fact, both the host and candidate states are considerably positive. The bid winner state promotes tourist arrivals in 7.6 percent. While failed candidatures for the event promote in 3.4 percent (Fourie and Santana-Gallego, 2011).

Secondly, regarding the destination image of the host city and state as a tourist attraction, destination image is a significant component of tourism research (Echtner and Ritchie, 1993, Baloglu and McCleary, 1999, Gallarza et al., 2002, Tasci and Holecek, 2007). The destination image is defined as 'the sum of beliefs, ideas and impressions that a person has of a destination (Crompton, 1979:18). Hosting sport events contributes to the enhancement and building of the destination image of the venue as a tourist attraction (Chalip and Costa, 2005, Brown et al., 2004, Smith, 2005). Furthermore, the brand image of the hosting destination is increased as broadcast media develops (Brown et al., 2004, Jago et al., 2003, Ritchie and Smith, 1991). SMEs, such as the Olympic Games or the World Cup, are an effective vehicle for change from the event image to the destination image (Kotler and Gertner, 2004). According to empirical research, the Calgary 1988 Winter Olympics enhanced the hosting venue or state's awareness and improved their destination image (Ritchie and Smith, 1991). Pike (2002) reviewed 142 destination image papers from 1973 to 2000. As a result of the review, SMEs exert a strong influence on the destination image as a tourism site. However, recent studies use multi-dimensional approaches. Kim et al. (2014), who classifies destination image into six sub-factors (i.e., urban, nature, culture, value, safety, climate and convenience images), found that the convenience image of the destination image changed significantly after the Beijing 2008 Summer Olympics, compared to before the event was hosted. In a study of 800 American travellers' destination brand perceptions of China, which classifies tourists' destination brand perceptions into three dimensions: cognitive image, affective image and destination personality (Hosany et al., 2007), there were no significant differences before and after the Beijing 2008 Olympics. Thus, the amount of Olympic media consumption could significantly make an impact on their destination perceptions (Li and Kaplanidou, 2013).

1.3.2 Socio-Cultural Legacy

As mentioned above, SMEs have noticeably tangible impacts. Early research has been mainly focused on the tangible impacts of hosting SMEs, such as economic growth,

development of tourism and urban regeneration. There has been limited research done on the intangible and non-material social impacts of hosting SMEs, owing to difficulties in accurately measuring those impacts (Bull and Lovell, 2007, Kim et al., 2006). Hall (1992:67) describes social impacts as, 'the manner in which tourism and travel effect changes in the collective and individual value systems, behaviour patterns, community structures, lifestyle and quality of life'. Fredline (2005), Higham (1999) and Kim et al. (2015) have examined social impacts that divide largely into two-dimensional structures (i.e., positive impact and negative impact), and the investigations are summarized in Table 1.6 on page 26.

1.3.2.1 Positive Socio-Cultural Legacy

Regarding the positive social impacts arising from hosting SMEs, many similar findings can be noted, except for in Higham's one, that 'the potential for positive impact may be questionable' (Higham, 1999:84). Fredline (2005) emphasizes an intangible side of the positive social impact, such as a sense of pride and self-actualisation. Kim et al. (2015) also offers tangible impacts such as infrastructure and urban development, as well as intangible impacts, as suggested below.

More specifically, residents take a positive stance on SMEs due to an enhancement of their community pride and quality of life, directly or indirectly (Andereck and Nyaupane, 2010). In the case of SMEs based in local communities, those have inevitable impacts on the local community. The mega-events create a wide range of socio-cultural impacts on the hosting states, as well as on hosting venues. Even though SMEs are short-term, benefits from the events are to improve civic pride and international image, as well as economic profit over the long-term (Persson et al., 1998). With regards to the socio-cultural aspects, it is possible to formulate a new image of the local community after hosting SMEs successfully. It also maximises the promotional effect of their venue through the media exposure of the bidding process in particular (Gratton et al., 2006).

Ohmann et al. (2006) examined the perceived social impacts of the Germany 2006 World Cup on residents, especially those that lived in Munich, which was one of the hosting cities. The study suggests that almost all residents had a positive attitude in general

towards the game. This is specifically in terms of 1) reinforcement of a sense of community among people from different ethnic groups, which Hall (1992) views as a shared experience that has a positive social impact; 2) urban renewal, which is supported by Kelly (1989), Hall (2004); 3) an increase in public security, unlike preceding studies by Hall and Selwood (1989) and Barker et al. (2001), as well as a decrease in the number of prostitutes and 4) positive fan behaviour, which is a lower percentage than the bad fan behaviour at other SMEs.

Also, SMEs are part of a strategy used to improve a state's soft power. In general, 'power' refers to effecting the outcomes you want and, if necessary, changing the behaviour of others to make this happen (Nye Jr, 2002). The 'power' can largely be divided into hard power and soft power. Hard power refers to the power to move others through threats and rewards, which takes an economic carrot and a military stick approach. In contrast, soft power refers to, 'the ability to affect others to obtain the outcome one wants through attraction rather than coercion or payment'(Nye, 2008:94). This soft power is related to intangible assets, such as attractive cultures, pioneering ideologies and/or credible, legitimate and commendable institutions, values and policies (Nye, 2004, 2008). The soft power is an effective strategy used to promote their culture, national image and policy internationally as invisible and intangible resources. According to Grix (2013:17):

> Sport is clearly part of a 'soft power' strategy and hosting sports mega-events - especially the Olympics - is clearly considered by states to provide a major contribution in the process of improving their nation's image, profiling and showcasing themselves globally and 'attracting' others through inbound tourism, increased trade and a growing sense of national pride.

In fact, in terms of international prestige, Calgary, who held the Winter Olympics in 1988, gained their international recognition as the mega-events venue and also improved their city image globally. According to the research, the most positive effect on the 1988 Calgary Winter Olympics was the international recognition of the venue (50%). The rest of the positive effects were an increase in the number of tourists (36.3%), economic effect (34%), Olympic facility (21.1%), improvement of Calgary image (14.2%) and a sense of civic pride (8.8%) (Ritchie and Smith, 1991). Equally, the international image of Australia has significantly improved through the 2000 Sydney Summer Olympics (Toohey, 2002).

1.3.2.2 Negative Socio-Cultural Impact

While the majority of studies above have emphasised the positive social aspects of hosting SMEs, there have been other concerns about negative social impacts of SMEs, as suggested below. The typical negative impacts from events that can be identified is high incidences of crime, vandalism, drunken behaviour, disorder and stealing (Hall, 1992, Getz, 1997, Barker, 2004), anti-social behaviour from fans (Barker, 2004, Wann et al., 2001, Weed, 2001, Weed et al., 2002) and disruption of the usual activity of the local residents (Ohmann et al., 2006, Hall, 2001). Other negative social impacts of SMEs are conflicts between tourists and residents, an increase in living costs, traffic congestion, parking problems (Ap and Crompton, 1993, McCool and Martin, 1994, Andereck et al., 2005), noise pollution and property cost inflation near the hosting venue (Collins et al., 2007). Preuss (2005) found that residents in the hosting venue tend to avoid local amenities during events due to the problem of overcrowding in facilities.

Recent sociological research on the London 2012 Olympics examined six fields of conflict, criticism, and complaints about residents, including: 'national criticism (e.g., on the distribution of Olympic resources), local criticisms (e.g., on the lack of jobs and business benefits), issue-specific campaigns (e.g., on the environment), 'glocal' protests against specific nations and sponsors (e.g., campaigns against BP, Dow, and Rio Tinto), neo-tribal transgressions and situationist spectacles (e.g., mass cycle rides near Olympic venues), and anti-Olympic forums and demonstrations (e.g., critical web sites and multi group marches)' (Giulianotti et al., 2015:99).

Table 1 6 Socio-cultural Legacy of Sports Mega-Events

Author	Positive social impacts	Negative social impacts
Higham (1999:85)	N / A	Crowding and congestion of tourism infrastructure Exclusion of residents from SME due to cost

		Hindrance to local lifestyle by SME and security issues
		Displacement or removal of residents
Fredline (2005:268-269)	Sense of pride	Sport fans behaving in a rowdy or delinquent manner
	Self-actualization	Nationalistic sentiments caused by international sport competition
	Opportunities for entertainment and community or family	Reductions in residents' psychological well-being, especially perception of a loss of control over their environment
	Catalyst for promoting sporting activity as demonstration effect	
Kim et al. (2015:24)	Infrastructure & Urban development	Social conflicts
	Economic benefits	Economic costs
	Community consolidation	Traffic problems
	Socio-cultural exchange	Security risk
	Community visibility & Image enhancement	Environmental concerns
	Knowledge & Entertainment	

1.3.3 Urban Legacy

The massive financial spending on SMEs has short-term and long-term impacts on the hosting regions, cities and countries, both on the population and on the city structure. The hosting states construct sports facilities for the competition and training, transportation (roads, tube lines and railway), and other amenities (hotels, accommodations, conference facilities, and power stations) (Müller, 2015c), as well as an increase in the number of jobs and economic stimulus caused by civil construction (Ritchie, 1984). For these reasons, notwithstanding the repeated failures of SMEs economically or politically (Kissoudi, 2008, Kasimati, 2003, Horne and Manzenreiter, 2006), SMEs are considered as 'catalysts for making major improvements in the physical landscape and the architecture of the city' (Gospodini, 2002:64). Moreover, hosting SMEs provides an opportunity to build infrastructures that require enormous capital, which are normally hard to raise funds for, (Shoval, 2002) and are one of the best instruments for urban policy-making for staging states and cities (Essex and Chalkley, 1998).

Throughout history, the Olympic Games have been an effective tool for promoting urban development (Chalkley and Essex, 1999, Essex and Chalkley, 1998). The London 1908 Olympics was the first to build new sports facilities (British Olympic Association 1908). However, it could be seen that urban regeneration for SMEs began earnestly in the 1960s. Since then, the size of sports facilities for SMEs has increased as the scale of SMEs has become bigger. Representatively, the 1960 Rome Olympics constructed both sports facilities and urban developments. In the 1964 Tokyo Olympics, they established a 10-year development project, including sports facilities, transport improvements, harbour development and housing and tourist attraction projects for their upcoming Olympic Game (Olympic Committee for Games of the XVIII Olympiad 1964).

Notwithstanding those positive impacts, SMEs also have potential risks to hosting regions. Most mega-events tend to utilise existing sports facilities or build new things. However, as SMEs are international and large-scale events, they cause the construction of large-scale sports facilities that consider international standards as well as exhibition facilities. Although this construction of sports facilities gives rise to the improvement of infrastructures within the hosting venue, many sports facilities for SMEs have remained

as unused as limping 'white elephants' (Gratton and Preuss, 2008). In fact, SMEs are an effective opportunity for developing states, in balance with improvements of economic and socio-cultural levels due to influxes of human and material resources, information and capital, in the process of improving the infrastructure within the hosting venue (Taylor and Edmondson, 2007, Leopkey and Parent, 2012). Although the duration of SMEs is short-term, the physical and environmental impacts on SMEs happen continuously, not only during the period in which the SMEs are held, but also after the closing ceremony. The massive budget investments for the infrastructures of SMEs cause various problems regarding utilisation and management after closing the SMEs (Gold and Gold, 2008). It is difficult to make any profit through the post management of sports facilities.

1.3.4 Sporting Legacy

As the Olympic Games and the World Cup are the biggest sporting events around the world, the SMEs provide opportunities to build sporting venues, like stadia, and to boost sport across the entire hosting region and state (IOC, 2012a). Sporting venues, which are one of the representative tangled legacies, must be constructed to host SMEs. In the case of the Summer Olympics, it must provide not only an array of competitive stadia for 28 sports, including golf and rugby which has been added to the 2016 Rio Olympics, but it must also provide an Olympic Village for thousands of athletes and media centres, where thousands of journalist cover. It is believed that those sporting facilities have positive impacts on grassroots and sport participation of the hosting countries (Pappous, 2011, Girginov and Hills, 2008).

For instance, the 1988 Calgary Winter Olympic Games left a wide range of remarkable sporting legacies. The Olympic Oval was the world's first covered speed skating stadium (OCO'88, 1988). The sporting legacy of the Winter Olympic is still used for public service with various winter sport activities and competitions. As a successful model for developing and training elite athletes, the sport facility has attracted elite Winter Olympic athletes from all areas of the world (Kidd, 2013). London, which hosted the 2012 London Olympics, regenerated the Lower Lea Valley, a deprived part of East London between Stratford and Hackney, as an Olympic Park. The iconic sporting complex, named the

Queen Elizabeth Olympic Park, includes the Olympic Stadium, the Olympic Village and many competition sports facilities (LOCOG, 2004). Since the Games finished, the sports complex has become the UK's leading destination for leisure and business, as well as for cultural events. The 2017 World Championships in Athletics took place in the revamped Olympic Stadium. Furthermore, it serves primarily as the new home for the West Ham United Football Club, which is one of the Premier League teams based in East London.

Another factor of sporting legacies boosts sport across the entire country of the hosting city. SMEs have become a successful catalyst used to inspire mass sport participation from the grassroots to the elite sport (Veal et al., 2012). As a ripple effect of sporting events, upgraded sport facilities and venues can also boost interest in new training programmes for coaches by providing state-of-the-art sports facilities and equipment to local resident. Veal et al. (2012) categorise sport participation legacy into two dimensions: direct and indirect, as below.

Table 1 7 Dimensions of the Sport Participation Legacy of Major Sports Events

Sort	Global (all participating countries)	Local (host city / country only)
Direct	Individuals are inspired to take up sport as a result of:	
	Engagement with the event via mass media.	Engagement with the event via mass media + live spectating + volunteering, etc
Indirect	Actions of sporting oganisations in developing athletes to take part and succeed in the event	Enhancement of sporting facilities and strengthening of sporting organisations

(Source:Veal et al., 2012:160)

The IOC emphasises the concept of Sport for All, which is to encourage and support people of all ages to participate in sport and physical activities (IOC, 2013e). They established the 23rd of June every year as Olympic Day to commemorate the birth of the

modern Olympic Games in 1984. The 'World Congress on Sport for All' is held biennially with many leading experts in the field, from about 90 countries, to share their research and practices on various activity participation.

According to Cashman (2006:171), one of the anticipated legacies of the Sydney Olympic Games in 2000, analysed by the Sydney Olympic Games Review Committee, is 'increased participation in sport'. Like this, many governments hoping to host SMEs have a tendency to posit positive sporting legacies. In context of the 'trickle-down' (Hindson et al., 1994) or the 'demonstration' effect (Weed, 2009) or 'virtuous cycle of sport' (Grix and Carmichael, 2012), they assert that successful performance of elite sport athletes at SMEs inspires the public to participate in sport. For example, in Barcelona the statistic level of participation in sport or physical activity rose from 36 percent to 51 percent between 1983 and 1995 (IOC, 2012a).

Much of the previous research on the trickle-down effect of sport events, however, have failed to demonstrate valid evidence of the effect of hosting SMEs on sport participation legacies. Weed et al. (2009) argue that there is a poor correlation between hosting international sporting events and sport participation. Although this argument is supported by some case studies in New Zealand (Hindson et al., 1994) and Australia (Hogan and Norton, 2000), some studies have shown that SMEs are one of the main factors in promoting sports participation. To increase grassroots sport participation, there needs to be plans of ex-ante and in-depth analyses of the estimated sport participation legacy before events are hosted (Leyns, 2002). Veal et al. (2012:176) emphasise the importance of the research period to measure sport participation. As short-term research to find proof of mass participation data, using a pre-post comparative approach, provides only 'prima facie evidence', a long-term examination will require obtaining adequate evidence to prove that SMEs can trigger increased mass sport participation over a long enough period. In a nutshell, it could be said that there is a lack of research on the sport participation legacy of SMEs.

1.3.5 Environmental Legacy

Sustainability and sustainable development are new concepts to overcome existing

paradigms for economic development and prosperity in the 20th century. The concept reflects the changing reality of environmental problems, such as natural disasters caused by climate change, destruction of the ecosystem resulting from industrial pollution, as well as depletion of natural resources, which threatens humanity in the contemporary society. These days, the notions of 'sustainability and sustainable development' are in our daily lives in many different fields, such as an economy, society and politics, and the terms are hard to define.

The notion of sustainability was defined by the Brundtland Commission in 1987 as 'the kind of development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (Brundtland et al., 1987:16). However, there are many different views and ways of how to achieve it.

In 1992, the United Nations (UN) held the Earth Summit (UN Conference on Environment and Development) in Rio de Janeiro, Brazil. In the conference, the adoption of Agenda 21 was established to provide a blueprint for sustainable development and environmental conservation over the world. It also provided a historical milestone for humankind to adopt as a global political agenda, creating economic, social and environmental issues. The major core contents for sustainable development are that balanced and harmonious developments of economic, social and environmental dimensions will ensure the continuous prosperity of the human society (POCOG, 2015).

As there has been a growing realisation that sports events, such as the Olympic Games and the World Cup, should adopt the framework of sustainable development, the IOC enshrined into the IOC charter that there should be, 'encouragement and support for a responsible concern for environmental issues, to promote sustainable development in sport and to require that the Olympic Games are held accordingly' (Olympic Charter, Chapter 1, Rule 2, Paragraph 13). The environment, at this moment, is a fundamental principle and is the third pillar of Olympism, after sport and culture. Since then, sustainability and sustainable development, in three parts: economic, social and environmental, has become an essential issue for the Olympic Games.

The concept of sustainability constantly applies as a key factor throughout the whole process of hosting the Olympics, from the preparation of Games to the post management of legacies from the events. The IOC requests, based on the Brundtland Commission's report, that the benefits from hosting SMEs should always outweigh the negative impacts and economic losses (Brundtland et al., 1987). In line with these developing trends in legacy, there has been a growing realisation that SMEs must create and deliver sustainable tangible and intangible legacies beyond events.

1.4 Conclusion

The aim of this chapter is to provide an overview of the general features of SMEs and the legacies from SMEs. To draw meaningful conclusions for this chapter, we have to identify the key features of SMEs and legacies from SMEs. In addition, it is important to determine how the aims of hosting states have changed over time, through sports history.

Firstly, the impacts of SMEs and legacies have increased from every aspect. Given that SMEs have often been staged for political and business purposes (Whitson and Horne, 2006), SMEs have not only been a symbol of sport events, encompassing politics, economics, social and cultural aspects beyond the sports competition among nations, but have been the essence of cultural mega-events, linked to various parts of our society beyond the borders of sport. As the scale of the SMEs become bigger, which (Müller, 2015c) terms 'Giga-events', the SMEs become an effective way to justify spending enormous state budgets, that are collected from the taxpayer, in order to build public infrastructures and boost urban change. The concept of legacy from SMEs has also drawn attention from cities and states, which hope to host SMEs, as well as from the IOC. One of the most important criterions for hosting SMEs at the bidding stage is the legacy plan, e.g. the kind of legacy planning approach and how the legacies will be effectively managed before, during and after the SMEs. In this sense, it is argued that legacies from SMEs are a distinct outcome of public investment and a product of conflict of interest among stakeholders.

The second key feature is that there has been a change of perspective of legacies from SMEs. Normally, sports events have left long-lasting and positive legacies. While the

diversity of early research from various academic fields were conducted to identify the exact impact of the legacies, it is difficult to measure the exact impact of the legacies on the hosting venues. To measure the gaps between optimistic forecast and the exact impact of the Games on the economy, society and environment, the OGI research appears to provide the most useful information on each edition of the Olympic Games for delivering positive and sustainable legacy to following events. While the previous studies on legacies from SMEs focused on tangible legacies, such as economic impact and sports infrastructure, a wide range of research has been conducted from a variety of perspectives because there is a growing importance of the intangible legacies of SMEs. As early research found, positive legacies are not naturally created by themselves. In this sense, the emergence of concerns relating to legacy plans, before the submission of the candidate city's legacy plan, has been considerably important in the leveraging of legacies.

The last noticeable feature of SMEs is the growing concern for sustainability and the sustainable development of SMEs. As the Rio Summit in 1992 widely raised the concept of sustainability, applicability of sustainability has expanded in global politics and business. In terms of SMEs, the concept of sustainability from SMEs has been steadily strengthened globally through discussions on sustainable development. This trend has continued on, following the SME, as an essential part of preparing and hosting SMEs. Indeed, along with the growth of concern about environmental protection, there has been a growing demand for sustainable development in sports events since the Rio Summit in 1992. Moreover, in recent years, through the edition of previous Olympic Games, the concept of sustainability has been applied as an essential part of SMEs in order to leverage legacies. This point can be explained by the IOC's perspective that sustainability harmonises economic, social and environmental dimensions.

In a nutshell, the scale of impact that SMEs have on humans has increased with globalisation. As a side effect of the rapid growth, however, the number of countries hoping to host the SMEs is decreasing due to financial burdens and public opposition. It is clear that this is a result of the lack of sufficient planning by the hosting states for the sustainable legacy of the SMEs. In this sense, sustainability has become the conceptual lens through which conferring has shed light on the long-lasting benefits of sustainable

legacies on hosting states. The concept of sustainability in SMEs, consisting of economic, social and environmental aspects, was first officially adopted at the Vancouver 2010 Winter Olympic Games. In addition, In the case of the PyeongChang 2018 Winter Olympic Games, a wide array of methods for sustainability, which is the most urgent issue, has been devised. Pioneering research on sustainability and sustainable development in sport is dedicated to delivering long-lasting sustainable legacy to our posterity.

CHAPTER 2 Sports Mega-Events and Sustainability

The focus of this chapter is an analysis of sustainability in relation to SMEs aimed at providing the key considerations of sustainability and the plans for its implementation. Since the notion of sustainability emerged at the Brundtland Commission in 1987, sustainability has become a popular term in the policy and research fields. Broadly speaking, sustainability is a multi-dimensional concept, consisting of economic, social and environmental aspects. In recent years, sustainability has been the subject of much attention in the sports sector as a key factor in the entire process of staging Sports Mega-Events (SMEs), from the invitation phase as a potential city to the post-management of the legacies of SMEs. Indeed, the last four editions of the Olympic Games have published official reports following the Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games (VANOC), which did so for the first time. Responding to this movement, sustainability has been one of the most important issues addressed by the PyeongChang Organising Committee for the 2018 Olympic & Paralympic Winter Games (POCOG) in an effort to promote well-balanced development through sports. The POCOG announced that its slogan was 'New Horizon' in 2011 after PyeongChang was awarded the right to host the 2018 Winter Olympics:

> … to create a new horizon for winter sports in Asia, an emerging stage for winter sport activities for the young generation of the Globe and to create [a] sustainable and creative legacy in PyeongChang and the Republic of Korea (POCOG, 2015:18).

In particular, this chapter serves three main purposes. The first section begins with an exploration of the fundamental concept and definition of sustainability through a brief history of the term. In the second section, the chapter offers a comprehensive analysis of the multidimensionality of the concept of sustainability: Economic, social and environmental dimensions, with notable frameworks of sustainability. Finally, the literature on sustainability and sustainable development in the context of the International Olympic Committee (IOC) and the Olympic Movement is reviewed. In addition, this research identifies the positive and negative aspects of the previous sustainable legacy

through the official reports and empirical case studies for games held in other countries, such as the Vancouver 2010 Winter Games and the London 2012 Olympic Games.

2.1 The Concept of Sustainability

Historically, humankind has focused on economic development as a top priority (Douthwaite, 1993). As the growth trend towards rapid economic development led to environmental problems, biological diversity and the ecological balance were harmed by acute environmental destruction. As a result of the previous growth trend, an environmental discourse emerged that criticised economic growth and sustainable development, and aimed to resolve the environmental issues (Nature et al., 1980, Brundtland et al., 1987). The previous economic growth trend, which was based on the destruction of the environment, had a particularly negative impact on the human species. The negative effects stemming from non-eco-friendly development aroused criticism of the economic and social aspects in addition to the environmental aspect. In terms of the finite natural resources and consumption markets, economic development had reached a limit, because it could not maintain continual high-speed growth (Stiglitz, 1974, Callan and Thomas, 2013, Beckerman, 2002). As a result, the economics-first policy was subjected to criticism (Meadows et al., 1972, Beckerman, 2002). At the same time, new social problems were created during the process of industrialisation as well. According to McKenzie (2004), the polarisation of wealth and the gap between the rich and the poor have become more serious. Moreover, changing trends, including a decline in the population caused by several factors, such as low fertility and an aging population, have impeded the potential for growth in the rate of national development. In response to the heightened awareness of the economic, social and environmental danger stemming from disproportionate development, the concept of sustainability has become significant from an integrated perspective (Hopwood et al., 2005). The simultaneous desire for the balanced development of economic growth, a harmonious society and nature conservation has underpinned the widespread support for sustainability and has been addressed in wide-ranging academic discourse from many perspectives (Adger and Jordan, 2009). To date, there have been many attempts to integrate the multifaceted

concept of sustainability. As Kidd (1992) suggested, however, sustainability is not an emerging concept. The concept of sustainability has evolved over a long period of time. Kidd emphasised that the growing movement toward sustainability has been strongly influenced by different streams of thought that have moulded the concepts of sustainability. Although sustainability is not a one dimensional concept related to the environment, in recent decades, it has frequently been considered as an environmental issue (Drexhage and Murphy, 2010).

2.1.1 A Brief History of Sustainability

Sustainability emerged globally as an important social issue when awareness of environmental problems began to increase. The Oxford English Dictionary defines sustainability as the 'ability to be maintained at a certain rate or level'. Whilst there is no controversy surrounding the lexical meaning of sustainability, the term 'sustainability' has been difficult to define because of the proliferation of definitions. Prior to the Brundtlant Report in 1987, sustainability referred to a concept that emphasised the value of ecological stability and criticised economic growth and material prosperity.

The concept of sustainability first emerged from Thomas Robert Malthus's book, '*An Essay on the Principle of Population*', which raised concerns about the growth of the population in the late 18th century (Maltus, 2006). Two hundred years after the Industrial Revolution, the modern concept of sustainability emerged, which encompasses a wide range of environmental issues caused by mass production and mass consumption in the mid-nineteenth century. In the early twentieth century, advanced technologies changed the world dramatically. The automatic line, invented by Henry Ford, served as the momentum to boost mass production, which has been labelled 'Fordism'. The term 'Fordism' is summarised as an era of mass production or intensive accumulation (Amin, 2011). Although it gained worldwide support and recognition due to the affluence of the nineteenth century, societies were confronted with environmental degradation by the late 1960s, including the destruction of the environment and the waste disposal issues caused by 'Fordism' (Hayter, 2008). In this context, the term 'sustainability' in the modern sense is derived from '*Silent Spring'*, which was written by Rachel Carson in 1962. In this book,

Carson highlighted the negative impact that the development of modern society has had on the environment, triggering the green revolution (Krebs et al., 1999). Hardin (2009) also posited that a burgeoning population is creating serious global problems. In line with the argument regarding the seriousness of the human population problems, Ehrlich (1970), in his book '*The Population Bomb*', warned that an environmental crisis could cause the exhaustion of natural resources due to overpopulation. Thus, in response to these books' warnings about environmental problems, people have become more interested in environmental issues and have participated in environmental protection, even beyond the local or national level.

The theoretical framework for sustainability commenced in earnest in 1972 with conferences at the international level. The 1972 UN Conference held in Stockholm, commonly known as the Stockholm Conference or Declaration, was the first UN conference on the human environment. In this conference, the UN declared 26 common principles for the preservation and conservation of the environment (UN, 1972). The Declaration had a direct effect by widely disseminating a range of actions for environmental protection. The meeting raised the attention of governments and international organisations about the present state of environmental damage and provided guidelines for environment-friendly action. Accordingly, a number of environmental organisations, such as the United Nations Environmental Programme (UNEP), were established as a result of the Stockholm Declaration.

A full-fledged discussion on the theoretical framework for sustainability took place in 1987 in the publication, 'Our Common Future', which is also known as the Brundtland Report. The World Commission on Environment and Development (WCED), chaired by the Prime Minister of Norway, Gro Harlem Brundtland, defined and developed the concept of sustainable development. The Report contained the most frequently quoted definition of sustainable development:

> Ability to make development sustainable – to ensure that it meets the needs of the present generation without compromising the ability of future generations to meet their own needs (World Commission on Environment and Development, 1987:8).

The Brundtland Report subsequently had an impact by stimulating the 1992 Rio Summit. The UN Conference on Environment and Development (UNCED), the Earth Summit, was held in Rio de Janeiro from 3-14 June 1992 to discuss the future of humanity and the Earth's environment. The Rio Earth Summit was attended by 172 governments, with 108 at the level of heads of state or government, approximately 2,400 representatives of non-governmental organisations(NGOs) and over 17,000 NGO activists who attended the parallel NGO 'Global Forum'. As one of the main essential outputs, the non-binding Agenda 21 was adopted by all 178 participating nations. The action plan, which was voluntarily implemented as an international blueprint for sustainability and sustainable development, embodied concrete guidelines at the local, national and global levels. While the Brundtland Report was a trigger that piqued public interest in intergenerational equity, the Rio Summit had a pivotal role in formally mainstreaming sustainability (Drexhage and Murphy, 2010).

In conclusion, there have been various global approaches to making a sustainable society part of the core content of an integrated perspective. However, due to the lack of a clear definition of sustainability, a wide range of research has been developed in an effort to provide an in-depth understanding of it since the Rio Summit. In the following section, we will look at how scholars have defined sustainability from an academic standpoint and identify the three sectors of sustainability: the economy, society and the environment.

2.1.2 A Definition of Sustainability

After the recognition of the importance of sustainability at the Rio Summit, questions were raised concerning the concept of sustainability and sustainable development from a variety of perspectives. The worldwide movement toward sustainable development has been in the spotlight in recent years as a solution to rapidly changing circumstances. However, the concept of sustainability is difficult to define because the terms 'sustainability' and 'sustainable development' are integrative. The standard definition of sustainable development is the 'ability to make development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs' (World Commission on Environment and Development, 1987:8).

The Brundtland definition became widely accepted as the normative abstraction: it postulated that sustainable development seeks to balance development with the environment. This simple definition is vague and does not specifically mention environmental degradation. As a result, approximately 140 different definitions of sustainability were established after the Brundtland Report. Currently, there are over 300 definitions of sustainability and sustainable development across various fields, as well as the environmental domain (Santillo, 2007). Yet Gladwin et al. (1995) noted that sustainability is in the process of being defined at an early phase of generalisation because it is a notion, similar to terms such as democracy, liberty or equality, for which there is much definitional diversity. There are representative definitions of sustainability and sustainable development from differing perspectives as presented Table 2.1. Barbier (1987) defined sustainability from an economic standpoint.

Table 2 1 Representative Definitions of Sustainable Development

Source	Definition
Barbier (1987:103)	To maximise simultaneously the biological system goals (genetic diversity, resilience, biological productivity), economic system goals (satisfaction of basic needs, enhancement of equity, increasing useful goods and services), and social system goals (cultural diversity, institutional sustainability, social justice, participation).
Hawken (1993:139)	Sustainability is an economic state where the demands placed upon the environment by people and commerce can be met without reducing the capacity of the environment to provide for future generations. It can also be expressed as … leave the world better than you found it, take no more than you need, try not to harm the life of the environment, and make amends if you do.
Viederman (1994:5)	Sustainability is a participatory process that creates and pursues a vision of community that

	respects and makes prudent use of all its resources, natural, human, human-created, social, cultural, scientific, etc. Sustainability seeks to ensure, to the degree possible, that present generations attain a high degree of economic security and can realise democracy and popular participation in control of their communities, while maintaining the integrity of the ecological systems upon which all life and all production depends, and while assuming responsibility for future generations to provide them with the where-with-all for their vision, hoping that they have the wisdom and intelligence to use what is provided in an appropriate manner.

In line with these concepts of sustainability, there has been one important research study on sustainability designed by the Board on Sustainable Development of the U.S. National Academy of Science, which was based on prior research reviewed by the board's members. In order to remedy the vagueness of the meaning of sustainable development in the Brundtland Report, the research focused on four key differences: 1) what is to be sustained; 2) what is to be developed; 3) the links between them and 4) the time horizon, which is presented in Table 2.2. 'What is to be sustained' is classified into three categories: nature, life support system and community.

Table 2 2 Sustainable Development: Common Concerns, Differing Emphasis

WHAT IS TO BE SUSTAINED:	**FOR HOW LONG?**	**WHAT IS TO BE DEVELOPED:**
	25 years	
	'Now and in the future'	
	Forever	
NATURE		**PEOPLE**

Earth		Child survival
Biodiversity		Life expectancy
Ecosystems		Education
		Equity
		Equal opportunity
LIFE SUPPORT	**LINKED BY**	**ECONOMY**
Ecosystem service	Only	Wealth
Resources	Mostly	Productive sectors
Environment	But	Consumption
	And	
	Or	
COMMUNITY		**SOCIETY**
Cultures		Institutions
Groups		Social capital
Places		States
		Regions

(Source:Kates and Clark, 1999:24)

2.2 Three-Legged Approach: Economy, Environment and Society

As presented above, the definition of sustainability and sustainable development is an ongoing process due to the three dimensions of sustainability: Economic, social and ecological sustainability have changed to meet the requirements of the age. The three pillars are usually presented as three interlocking rings as shown in Figure 2.1 (Barton,

2000, Du Plessis, 2000, Azapagic and Perdan, 2000). The intersecting circles of sustainability are the intersection of the economic, social and environmental factors. This model is the most effective and widely known method of presenting the structure of sustainability. In the Venn diagram model, the three dimensions of sustainability have a complementary relationship; they integrate and subdivide each other in order to achieve the common goal of sustainability. Each dimension has overlapping parts, and the central part, where the three circles match, is generally called sustainability. Moreover, it can express the correlation between each dimension more effectively. In general, the three factors appear to have rings of an equal size, but this is not fixed (Adams, 2006). For example, it is possible for the economic ring to be the biggest one. From the economic perspective, a businessman can place priority on extending the economic circle.

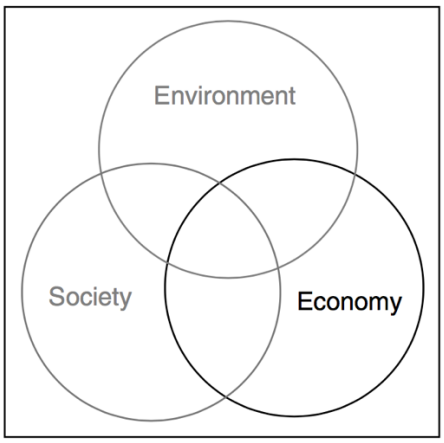


Figure 2 1 Common Three-ring Sector View of Sustainability

This model is significant in that it simplifies the conceptual complexity of sustainability. However, there is clear evidence of the weakness and limitations of this model. Giddings et al. (2002) pointed out the incongruity of the Venn diagram. First, the separated circles in this model can be assumed to risk misrepresenting the fundamental connections between society, the economy and the environment. The separation underplays the basic relationship between the factors, and it assumes that it is possible for the three factors to be exchangeable based on the concept of weak sustainability, which means that economic

and environmental capital are substitutable for each other based upon the core of neoclassical welfare economics (Neumayer, 2003). Secondly, they argued that despite a tendency to give priority to the environmental dimension rather than the other factors, the economic aspect of sustainability has actually been supported by governments and corporations. This approach seems to be counterintuitive in terms of governments and corporations based on neoliberal economic theory.

To overcome the limitations and barriers mentioned above, it was necessary to develop a holistic model to present the relationship between the three dimensions more accurately. The following nested circles model represents a nested hierarchy, which consists of three circles with rotational symmetry. Interestingly, it adopts a hierarchical approach in contrast to existing horizontal approaches to the three dimensions of sustainability such as the 'Triple Bottom Line' (Moir and Carter, 2012).

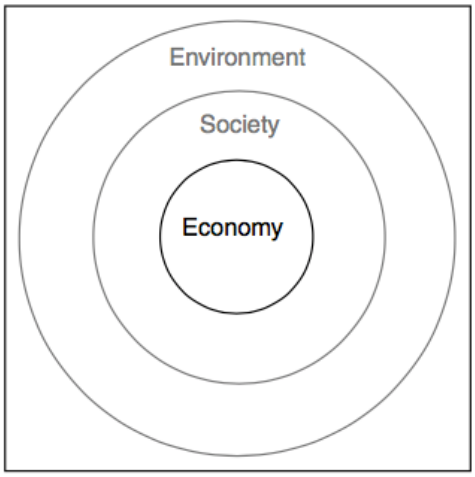


Figure 2 2 Concentric Circles

In this model, the economy is considered to be a part of society as a subset and is not the most essential part, although it is located at the centre of the model. The economic and social dimensions are subordinated to the environmental dimension. Without society, the environmental system can continue (Lovelock, 2000), but economic development cannot improve. By not allocating an independent division to the economy, it is evaluated as a more advanced model for illustrating sustainability. In this context, by separating the economy from other human activities, the previous Venn diagram model overstates the

importance of the market in meeting the needs of human beings (Lozano, 2008). Giddings et al. (2002) pointed out, however, the limitations of the graphical model, which has sharp boundaries between the three dimensions. They also stressed the need for an integrated approach to sustainability because of the ambiguity in the boundaries between human activities and the environment.

As the concept of sustainability has multi-dimensional proposed by above, there have been numerous attempts to analysis each dimension of sustainability. In the following sub-section, brief features of each dimension of sustainability are examined through three evolving discourses: Economic, social and environmental sustainability.

2.2.1 Economic sustainability

Notwithstanding that the notions 'sustainability' and 'sustainable development' were coined against the environmental degradation caused by rapid economic growth, many research studies have emphasised the importance of economic value for sustainability. From the classic economic standpoint, the term 'development' is mainly focused on the dynamics of economic growth, such as investment and capital (Pezzey, 1992). Traditionally, economic development meant the expansion of the size of the entire market and the increase in financial capital based on capitalist theory. However, in reaction to the growing recognition of the danger of this theory, the concept of sustainability has been broadened beyond a capitalist perspective (OECD, 2008).

At the beginning stage of sustainability in economic terms, the definition of sustainability is the continuous quality of life for the long term and the maintenance of various natural capital stocks (Pezzey, 1992, Pearce et al., 1988). This definition, however, primarily had a tendency to focus on the physical aspect of economic sustainability. In order to overcome the limitations mentioned above, Goodland and Ledec (1987) pointed out the approaches to sustainability which emerged from neoclassical economics, which underestimate the value of ecological service. Their approach implies 'using renewable natural resources in a manner which does not eliminate or degrade them, or otherwise diminish their usefulness for future generations' (Goodland and Ledec, 1987:37). They

also highlighted an 'equitably distributed level of economic well-being that can be perpetuated continually for many human generations' as the ultimate goal for sustainability (Goodland and Ledec, 1987:36). In terms of well-being, a range of research has reported that the notion of 'well-being' is fundamental in the context of economic sustainability. Maltus (2006), who wrote the '*Essay on the Principle of Population'* in 1798, approached human well-being in terms of the ratio between the natural resources and the human population.

Recently, the OECD (2008) stated that well-being is a potential term to measure sustainable development, taking the perspective of classical economics that well-being is defined as a function of consumption: the purchase of physical goods and services. According to the recent economic perspective, sustainability is a combination of 'dynamic efficiency' and 'intergenerational equity' (Stavins et al., 2003:340), and 'non-declining per capita national wealth'(United Nations et al., 2003:4). Another point to note is that the economic dimension of sustainability also plays an essential part in political decision making. Barack Obama, the former president of the United States, expressed grave concern about the economic situation:

> It is simply not sustainable to have an economy where in 1 year, 40 percent of our corporate profits came from a financial sector that was based on inflated home prices, maxed-out credit cards, overleveraged banks, and overvalued assets. (Government Printing Office, 2011:485)

In brief, economic sustainability is often portrayed in a negative way in the context of sustainability as the biggest cause of environmental degradation, but both governments and global companies still focus on economically sustainable development. Our reality gives priority to the economy, rather than the other factors, i.e. society and the environment, in the political decision making process (Giddings et al., 2002).

2.2.2 Social Sustainability

As noted above, sustainability is strongly focused on the environmental dimension. Much of the research on sustainability tends to deal with whether or not ecological sustainability takes priority over economic sustainability. Although Agenda 21 from the Earth Summit

in 1992 contained social and economic dimensions in its first section, there is a wealth of literature indicating that social sustainability has not been of concern in a relative sense (Vallance et al., 2011, Littig and Grießler, 2005, Cuthill, 2010). As mentioned by several research studies, social sustainability is less clear (Martin, 2001) and 'lacks broad recognition' (Spangenberg and Omann, 2006:319). In recent decades, there has been a growing interest in the social dimension of sustainability. It is difficult to develop the concept of social sustainability due to the cultural and social diversity in various countries based on their historical and geological characteristics. The idea that 'the concept of social sustainability is vague' is still open to dispute.

According to the Brundtland Report: Our Common Future, the social aspect of sustainability means that economic and social development are complementary to each other, and that economic development can act as a catalyst for socially sustainable development, e.g. the provision of the equal opportunity to education for deprived children. The Report also indicated that 'the distribution of power and influence within society lies at the heart of most development challenges' (World Commission on Environment and Development, 1987:37). There are a wide range of approaches to social sustainability. The body of research on social sustainability has similar theoretical roots. The concept of social sustainability, as developed by Barron and Gauntlett (2002) and (City of Vancouver, 2005), offers definitions in the context of community planning and the participatory process. City of Vancouver (2005:12-13) stated that the basic structural components are the 'basic needs, which can consistently fulfil residents' satisfaction' and whereby 'individual, human, social or community capacity can be maintained and enhanced'. The Report also identified four guiding principles of social sustainability: 1) Equity; 2) Social inclusion and interaction; 3) Security and 4) Adoptability. In line with this issue, Barron and Gauntlett (2002) presented five principles of social sustainability: 1) Equity; 2) Diversity; 3) Quality of life; 4) Interconnectedness and 5) Democracy and governance. According to Sachs (1999:32-33) definition:

> Social sustainability includes achieving a fair degree of social homogeneity, equitable income distribution, employment that allows the creation of decent livelihoods, and equitable access to resources and social service… a balance between respect for tradition and innovation, and self-reliance, endogeneity and self-confidence.

He also emphasised the importance of cultural sustainability, which balances external changes with internal development, and political sustainability, which is based on effective institutional strategies. On the other hand, Godschalk (2004) approached this in a different way, as he focused on the conflict among the components of social sustainability. He adopted Campbell's theory, which represents a triangle of conflicting goals for urban planning consisting of three axes, property, resources and development (Campbell, 1996), and he added 'liveability' to Campbell's triangle as one of the components of social sustainability. Whereas much of the discourse on sustainability has tended to identify positive outcomes, Godschalk's work is important as it represents a very different approach. It is also useful for contemporary land use planning to encompass a wide range of concerns as opposed to only considering research from the social perspective.

More recently, there have been a variety of attempts to provide a structured overview of social sustainability for the last 10 years (Vallance et al., 2011, Missimer, 2015). Vallance et al. (2011:345) work, which attempted to impose an integrated definition of social sustainability, presents three sub-categories of the social aspect of sustainability: 1) development sustainability; 2) bridge sustainability and 3) maintenance sustainability (see Figure 2.3).

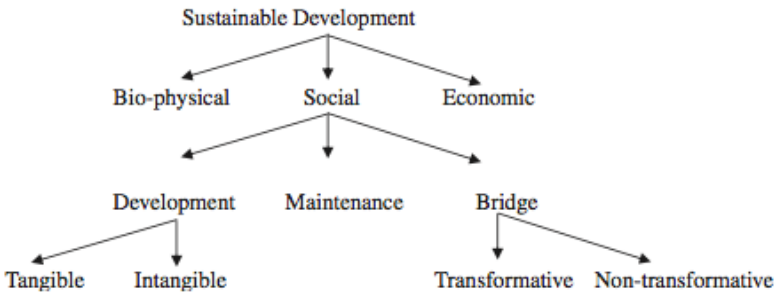


Figure 2 3 Three Strands of 'Social Sustainability'

As Figure 2.3 above illustrates, social sustainability is comprised of a threefold schema in this model. The first strand is 'development sustainability', which includes the tangible basic necessities for life (food, clothing, housing) and the more intangible concept of

social development sustainability (equity, education, justice and the creation of social capital). The second schema is 'bridge sustainability', which refers to a change in the social attitude towards bio-physical environmental aims. In this sense, the notion has been described as a basic social condition for the support of environmental sustainability. Finally, 'maintenance sustainability' means the preservation and sustainability of social-cultural characteristics in the face of shifts in society and receptivity to the social change. Another approach proposed by Missimer (2015) focuses on underdeveloped social sustainability from theoretical and practitioner's perspectives. Missimer identified five fundamental components of social sustainability using the Framework for Strategic Sustainable Development (FSSD): health, influence, competence, impartiality and meaning-making.

In conclusion, it seems clear that social sustainability is still a complex concept. The aforementioned research was conducted to identify and define social sustainability in recent decades, but as McKenzie (2004:16-17) suggested,

> as definition and indicator sets are often developed through consultation with community members as a first phase in research programs, they vary according to the needs and interests of the community in which they are developed.

Notwithstanding the vagueness and lack of clarity in social sustainability field, however, an interesting point to emerge is that social sustainability has been an essential part of sustainability. Social sustainability is also meaningful in that it focuses on the relationship between human beings and human beings as well as qualitative growth based on social equity beyond quantitative growth.

2.2.3 Environmental Sustainability

Although sustainability is a complex concept comprising economic development, social equity and environmental preservation, the concept of sustainability has frequently been viewed as focusing on environmental issues from the Declaration of the United Nations Conference on the Human Environment at Stockholm in 1972 (Drexhage and Murphy, 2010).

In the literature, the term 'environmental sustainability', which is sometimes referred to as 'environmentally sustainable development' (Serageldin et al., 1994:9), was developed through the conflict in the growth debate after World War II and through self-awareness regarding environmental protection. Goodland (1995:10) conceptualisation of environmental sustainability defined it as 'the maintenance of natural capital'. He also stated that environmental sustainability has four basic principles for regulating the size of the human economic subsystem: 'the use of renewable and non-renewable resources on the source side, and pollution and waste assimilation on the sink side' (Goodland, 1995:10).

A review of the literature reveals that some issues regarding environmental sustainability have been raised. First, it is difficult to apply theories about environmental sustainability in practice. Goodland (1995) posited that the way forward for environmental sustainability will differ according to a country's or region's characteristics. Moreover, there are political barriers to the implementation of environmental sustainability in developing countries, as explained by the 'Brown Agenda' (Bartone et al., 1994). Second, there is general agreement that the principle of precaution has been essential for environmental sustainability as noted in the 'Rio Declaration' in principle 15: 'In order to protect the environment, the precautionary approach shall be widely applied by states according to their capabilities'. From a viewpoint of strong sustainability known as the 'non-substitutability paradigm' (Neumayer, 2003:1) of sustainability, which sees the environmental infrastructure as irreplaceable, the preparation of fundamental precautions against environmental destruction has been emphasised globally by various studies and regulations.

Table 2 3 Criteria of Environmental Sustainability

Source	Criteria
OECD (2001:6)	**Regeneration**: Renewable sources shall be used efficiently and their use shall not be permitted to exceed their long-term rates of nature regeneration.

Substitutability: Non-renewable resources shall be used efficiently and their use limited to levels which can be offset by substitution by renewable resources or other forms of capital.

Assimilation: Releases of hazardous or polluting substance to the environment shall not exceed its assimilative capacity; concentrations shall be kept below established critical levels necessary for the protection of human health and the environment. When assimilative capacity is effectively zero (e.g. for hazardous substances that are persistent and /or bio-accumulative), effectively a zero release of such substances is required to avoid their accumulation in the environment.

Avoiding Irreversibility: Irreversible adverse effects of human activities on ecosystems and on biogeochemical and hydrological cycles shall be avoided. The natural processes capable of maintaining or restoring the integrity of ecosystems should be safeguarded from adverse impacts of human activities. The differing levels of resilience and carrying capacity of ecosystems must be considered in order to converse their populations of threatened, endangered and critical species.

2.2.4 Sustainability Frameworks

Much research has attempted to integrate the multidimensionality of sustainability through various framework presented by above. Drexhage and Murphy (2010) point out that the concept of sustainability is not only broadly focused on environmental aspects but emphasis the importance of integration of key dimensions of sustainability. In this sub-section, the four leading sustainability frameworks, which is to integrate dimensions of sustainability, are presented: The Triple Bottom Line, the Natural Step, the Ecological Footprint, and Graedel and Klee's Sustainable Emissions and Resource Usage. While the first framework, the Triple Bottom Line, emphasises the balanced development of the economic, social and environmental dimensions of sustainability, the rest of the frameworks have a tendency to focus more on the ecological perspective, which is aimed at reducing and preventing the destruction of the ecosystem.

The Triple Bottom Line: The term 'the Triple Bottom Line' is a newer accounting framework to measure sustainability coined in 1994 by John Elkington. The triple bottom line (commonly abbreviated as TBL) incorporates three dimensions, i.e. the social, economic and environmental dimensions (Elkington, 2004). While the traditional reporting framework only focuses on economic measurements, the TBL includes the social and environmental dimensions, which are difficult to measure precisely. In terms of the emerging concern for social equity and environmental protection, many organisations and companies have adopted the TBL as their operational policy in decision making. Some research, however, has pointed out the limitations of the TBL. Marshall and Toffel (2005) noted that there is no guarantee that the implementation of the TBL is directly connected to sustainability. In a similar vein, Norman and MacDonald (2004) argued that the concept of the TBL is difficult to define. They described the framework as a 'good old-fashioned single bottom line plus vague commitments to social and environmental concerns' (Norman and MacDonald, 2004:13). Despite these criticisms of the TBL, it is the most widespread and commonly used framework in organisations and businesses.

The Natural Step: The Natural Step refers not only to a non-profit and non-governmental organisation having branches in 11 countries, but to the partially open source framework they seek. There are rules called 'basic sustainability principles' for the creation of a sustainable society:

> natural is not subject to systematically increasing 1) …concentrations of substances extracted from the earth's crust (e.g., CO2 from fossil fuels, or heavy metals and radioactive isotopes), 2) …concentrations of substances produced by society (e.g., CFC's, NOx and endocrine disruptors), 3) …degradation by physical means (e.g., deforestation, overfishing and overuse of water tables) (Nattrass and Altomare, 2013:23)

In addition, Missimer (2015:5) proposed an additional social principle, i.e., 'in a socially sustainable society, people are not subject to structural obstacles to health, influence, competence, impartiality and meaning-making'. The Natural Step has pioneered the Framework for Strategic Sustainable Development (FSSD), which is designed to examine the structure of sustainable development and processes. Bratt (2014:26) also noted that

> a rigorous scientific understanding was needed that also allowed for dealing with trade-offs from the perspective of a future sustainable situation and therefore minimises the risk of creating new problems while solving the known ones.

The Ecological Footprint: The Ecological Footprint is an ecological accounting framework. It is a way to measure how much nature is required to sustain human life at the individual, state and global scales. The framework quantifies how much land or how many hectares an individual, a city, a country, a region or mankind as a whole need to maintain themselves (Wackernagel et al., 1999). The concept of the Ecological Footprint was developed by Mathis Wackernagel, along with his doctoral supervisor, William Rees, at the University of British Colombia between 1990 and 1994. The Ecological Footprint focuses on the inequality in the consumption of natural assets. To make sustainability a reality, they keenly realised the necessity of a measuring tool for our natural capital, which refers to how much natural resource stocks remain.

Graedel and Klee's Sustainable Emissions and Resource Usage: Graedel and Klee (2002) proposed a sustainability framework for calculating sustainable emissions and resource use. The framework consists of a four-step process: 1) calculate the amount of available natural resources (for regions, countries, the earth, etc.); 2) allocate how much of the virgin material supply is needed based on a reasonable formula, which depends on the specific time scale and population; 3) calculate the amount of the resource base, including reusable materials, stockpiles and landfills and 4) derive the sustainable consumption rate from calculating and comparing the sustainable consumption rate to the current consumption rate.

In this thesis, the Triple Bottom Line is used as one framework to integrate and evaluate sustainability through sports mega event. The Framework adopted officially by IOC is to measure the impact of the Olympic Games and to assist potential hosting cities and Olympic Games organisers through the transfer of Olympic strategy: how to plan and deliver the Olympic Games. Moreover, this framework is well-balanced among three components consisting of sustainability.

2.3 The Olympic Movement and Sustainability

In the previous section, several dimensions which are helpful to understanding sustainability were examined. The concept of sustainable development has spread widely since the *Our Common Future* report from the United Nations World Commission on Environment and Development in 1987. The members of the committee discussed a long-term and strategic approach to our environmental deterioration due to industrialisation based on a grown-first policy. The concept was influential in leading not only to the Rio Earth Summit in 1992, but also to the following events, which have provided ways to maintain the standards of more specific management plans for sustainability, including the World Summit+5 in 1997, the World Summit+10 in 2002 and the World Summit+20 in 2012, which is well known as Rio+20. Those events were held to secure the political affirmations of sustainable development submitted pursuant to Agenda 21 and to discuss the trends and emerging threats to the environment. Sustainable development was defined by the Rio Summit as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (World Commission on Environment and Development, 1987).

In response to the worldwide movement advocating for sustainable development, Achim Steiner, who was the executive director of the United Nations Environment Programme (UNEP), referred to the Olympic Movement as a catalyst to promote sustainability: 'The Olympic Movement has raised the bar for future sustainable mass spectator events.' (IOC, 2012b:2) As he stated, the Olympic Movement has included environmental concern as one of its three pillars, sports, culture and the environment, which comprise Olympism. Notwithstanding that sustainability in sports mega-events is a relatively new concept, the IOC has officially been concerned about the sustainability of sports mega-events since the Lillehammer 1994 Winter Olympics. It has taken action to promote a sustainable future throughout the Olympic Games, working with partnership companies around the world. Broadly speaking, sport has been one of the strongest measures to arouse the public's awareness about sustainability. In 2015, the IOC changed the Sport and Environment Commission to the Sustainability and Legacy Commission, which promotes the importance of sustainability and a long-lasting legacy in the Olympic Games. This

reflects its growing ecological concern about sustainability through sports by fostering the economic, social and environmental sustainability of the Olympic Games. Thus, sustainable development has become one of the essential objectives of the Olympic Movement.

2.3.1 From Agenda 21 to Agenda 2020

Prior to implementing the Olympic Movement's Agenda 21, the IOC was not committed to a policy of concern for environmental issues. Notwithstanding the destruction of the environment resulting from previous Olympic Games, the IOC was insensitive to environmental destruction (Cantelon and Letters, 2000). For example, the Albertville Winter Olympic Games in 1992, which occurred in the same year as the Earth Summit, were rated as one of the worst environmental disasters in the history of the Olympic Games. Although widespread concern over environmental issues was caused by the construction of sport facilities for the Olympics, the construction caused irrevocable environmental deterioration (Cantelon and Letters, 2000). The adverse impact on the environment in Albertville became the catalyst for more rapid change in the environmental policy for the Olympic Games throughout the next Winter Games, which were held in Lillehammer, Norway in 1994. The Lillehammer Winter Olympic Games in 1994 became the first Olympic Games which specifically considered the Games' impact on the natural environment. The Norwegian Prime Minister, Gro Harlem Brundtland, who served as the Director-General of the World Health Organization from 1998 to 2003, took part in the Lillehammer Olympic Organisation Committee (LOOC) as a presenter during the bid presentation by Lillehammer to the IOC session on 15 September 1988 in Seoul, where Lillehammer was elected as the host venue for the 17th Winter Olympic Games.

> "…. An ethic of solidarity with our current and future generations, a responsibility to the global balance of nature and an understanding of our role within it. The ideals of the Olympic Games movement are important to international cooperation and the latter is something we need more of than ever before (Mathisen, 1989:155).

The IOC officially began to draw up guidelines through a sustainability lens in 1996, with an update of the Olympic Charter to enshrine this principle. In Article 2 of the Olympic

Charter: Role of the IOC, the IOC changed its 13th principle as below.

> …. a responsible concern for environmental issues, takes measures to reflect such concern in its activities and educates all those connected with the Olympic Movement as to the importance of sustainable development. (IOC, 1996:11)

To extend and underline the importance of environmental governance as one of the key components of the Olympic Movement, the IOC amended the existing Olympic Charter in 1996, which established environmental sustainability as a third pillar alongside sport and culture. Two years after the amendment, the IOC published the Olympic Movement's Agenda 21: Sport for Sustainable Development. In this report, the IOC expressed their stance on sustainability, positioning themselves to help create a sustainable future through sport. In the latest version of the Olympic Charter, updated 2 August 2015, the IOC expressed its commitment: 'to encourage and support a responsible concern for environmental issues, to promote sustainable development in sport and to require that the Olympic Games are held accordingly' (IOC, 2015a:19).

More recently, after Thomas Bach's election as the new president of the IOC in 2013, the IOC presented 'Olympic Agenda 2020' at the 127th IOC session in Monaco on December 8th and 9th 2014, which consists of 5 clusters, 14 working groups and 20+20 recommendations for the future strategy and plans of the IOC. The Agenda 2020 resolutions include 2 key areas: 'Bidding procedure' and 'Sustainability and Legacy' (MacAloon, 2016). The 40 proposals that make up Agenda 2020, described as a 'strategic roadmap' for the future of the Olympic Movement, are based on Bach's manifesto pledges from his election campaign. In his manifesto, he emphasised sustainability.

> …a concept of respect for the environment, feasibility and development to leave a positive legacy for the hosting community and the world of sport at large. (Bach, 2013:9)

The IOC board brought sustainability to the fore in Agenda 2020. In recommendation 1, the IOC introduce their new philosophy for the bidding procedure for the Games. Even though no direct mention is made of the term 'sustainability', the specification that 'potential candidate cities [are] to present an Olympic project that best matches their

sports, economic, social and environmental long-term planning needs' (IOC, 2014b:9) clearly pertains to the concept of sustainability.

In summary, sustainability has become a significant concept in staging sports mega events as well as a global trend in recent years. The environmental disasters caused by previous sports mega events have raised the value of sustainability from an environmental perspective. In keeping with this global trend, the IOC released Agenda 21 for the Olympic Movement to promote and encourage environmentally-friendly Olympics, and designated environmental issues as an integral part of the Olympic Movement. However, ongoing threats, growing costs and the vast size of sports mega events, as well as the difficulty of post-event management, have created a major crisis, as diminishing numbers of countries have been interested in bidding for right to host such events. In response, Agenda 2020 set forth the 40 recommendations to leave a sustainable legacy that fits host cities' needs economically, socially and environmentally, eliminating the problems experienced by previous host cities. These changes reflect the need for an overall master plan for these events, centring on delivering a sustainable legacy right from the initial planning stages of the event.

2.3.2 Bidding Phase for Sustainable Sports Mega-Events

As a movement for sustainability has grown up in the context of sports mega events, the importance of candidate files for potential host cities — documents which contain their sustainability plans — has increased. The IOC's changes to its bidding procedure, in line with the new philosophy of Olympic Agenda 2020, incorporates the promise of sustainability through sports mega events as an instrumental component in the bidding process (Pentifallo and VanWynsberghe, 2011). Kelly (2010) argues that the previous way of choosing the host country had become costly and drawn out, as well as complex bureaucratically. The rationale behind sustainability in sport is to address the risk of sports mega events that lack a clear vision and long-term action plan. Without a doubt, as a result of the unexpected expansion of the size of sports mega event, called 'gigantism'(Chappelet, 2014), staging sports mega events such as the Olympic Games or the World Cup requires not only huge government funding — drawn from public money

— for running the event and for investment in various venues and infrastructure, but also a continuous additional outlay on post-event management. The growing interest in sustainable event legacies notwithstanding, the lingering concerns of host cities about the long-term return on their investment have long overshadowed sports mega events.

In order to host and manage sports mega event effectively, candidate cities must consider appropriate national plans, with political support and public confidence for post-event management to avoid 'white elephants'. In Olympic Agenda 2020, the IOC expresses a strong commitment that future Olympic Games' bidding processes should break the pattern of low efficiency and high expenditure (IOC, 2014b). The IOC fills the first 5 of the 40 recommendations for the bidding process with a strong focus on sustainability and legacy. In terms of sustainability and positive legacy, the most eye-catching recommendation is that the IOC allows that the host city can hold entire sports or disciplines outside of the host city and, in exceptional cases, even outside of the host country (1 [3-4]). These recommendations are very meaningful in that the IOC has changed its 'One-city Principle', for the first time allowing the Olympic Games to be co-hosted between two cities and countries. In addition, the IOC promotes the maximum use of existing facilities and infrastructures. Past Olympic Games, as a result of promoting the 'close proximity' and 'compactness' of Olympic stadia and infrastructures, left the hosts with inevitably astronomical costs for the maintenance and operation of facilities after closure. Therefore, the IOC unveiled recommendations to give flexibility to the Games, such as expanding the boundaries to adjacent cities and countries to avoid the unreasonable construction costs for Olympic Games. In fact, the 'close proximity' and 'compactness' of the candidate cities were previously important determining factors in the evaluation of the potential cities: 'proximity of sites to each other and to the nerve centres of the Games (Olympic Village, IBC, MPC, etc.) and to the city centre is highly recommended. Site concentration if planned sensibly will certainly ease the running of the Games' (IOC, 2002:42). Through Olympic Agenda 2020, however, the IOC has made clear its commitment to reduce the total budget and expenses for the reason of sustainability in future Olympic bidding processes and in the operation of Olympic Organisations. For these reasons, the candidate cities for Olympic Games must submit their candidate files, including sustainability management plans for before, during and

after the Games. Sustainable legacy from sports mega-events has also become an important assessment factor in ensuring the successful staging of sports mega-events in the host city and country from the long-term perspective, from the invitation phase, in which a potential city sets out its credentials, to the post-Games period. As a result, the main problem facing potential cities hoping to hold the sports mega-events has become the need present a long-term vision, with associated anxieties about what kind of sustainable legacy to leave through the sports mega-events.

In the past, there was huge gap between estimated budget and final operating budget to host sports mega-events. As the size of sports mega-events has increased, the soaring cost imposes financial burdens that candidate cities must bear. Flyvbjerg and Stewart (2012) argue that 100 percent of the sports mega-events, from 1960 to 2012, overran the costs set for their bidding phase, with final operating budgets 179 percent more on average than budgets at bid. In fact, many European states have withdrawn a bid for the right to host sports mega-events for the reason of financial burden. In the bidding process for the 2022 Winter Olympic Games, which Beijing has won the right to host, four out of six candidate cities cancelled the bid as a result of referenda which resulted in a vote against their Olympic projects. Notably, voter turnout against a bid for hosting the Olympics in Krakow, Poland, was overwhelmingly high, at almost 70 percent (Zurawski, 2014, May 26). MacAloon (2016) describes the phenomenon of fewer countries interested in hosting the Olympics as a ‘crisis’. Moreover, a majority of citizen living in Europe rejected Olympics bids.

In summary, the sustainability of sports mega-events is an essential factor to be implemented throughout the whole process. As shown in the IOC’s OGI research, in order to create a sustainable event a systematic and concrete plan must be established, with sustainability in mind from the planning stage. In addition, the Olympic Agenda 2020, designed to make the Olympics more sustainable, enables sustainable Olympics events to be integrated economically, socially and environmentally into future and planned host countries. The sustainability initiative is an effective way to restore widespread support from the public and justify huge financial investments in sports mega-events.

2.3.3 Sustainability Initiatives through Olympic Games

This sub-chapter takes a closer look at the way in which sustainability became an essential part of the Olympics. As a continuous project for the Olympic Movement, sustainability has become a catalyst for the global awareness of rising environmental issues through Olympic Agenda 21. There have been many changes in the way that the IOC deals with sustainability in the Olympic Games. In the 1990's, the 1994 Winter Olympics in Lillehammer became the first 'Green Games', which included environmental considerations. The following year, subsequent to the Lillehammer Olympics, the IOC officially stated that environmental sustainability is now a pillar of the Olympic Movement alongside sport and culture. At the Lillehammer 1994, there environmental issues were considered at the planning and construction stages (IOC, 2012b). Since the official announcement of environmentalism as a new third pillar, as well as the creation of Olympic Agenda 21, environmental issues have been mainstreamed in the selection of Olympic host cities as vital components in the candidate files of potential Olympic cities. Subsequent to the Lillehammer Games in 1994, Olympic Bid Committees framed their bid plans according to sustainability (Chalkley and Essex, 1999, Essex and Chalkley, 2004). Moreover, Collins et al. (2009) argued that environmental consciousness plays a pivotal role in hosting sports mega-events. Expectations for sustainability in future Olympic Games have continued to rise, while most Olympics have placed increasing emphasis on environmental aspects of sustainability. Given the previous research on sports mega-events has focused more on economic (Preuss, 2004, Preuss, 2005, Kasimati, 2003, Baade and Matheson, 2002) and social (Higham, 1999, Fredline et al., 2003, Fredline, 2005, Kim et al., 2015) aspects of sustainability, this is a reaction to the neglect of the environmental dimension, as well as an active response — through the staging of the Olympics — to the need for a solution to environmental issues,. Over time, through successive previous Games, the environmental understanding of Olympic Games Organising Committees has become more specific and complex. The ultimate environmental goal of the Olympic Games remains the same: to have the least possible negative impact on environment (IOC, 2012b). However, the high level of IOC's interest in environmental issues has ironically paved the way for 'Green Games', rather than making the Olympics a 'sustainable event', i.e. one which is well-balanced economically,

socially and environmentally.

2.3.3.1 Vancouver 2010 Winter Olympic Games

The Vancouver 2010 Winter Olympic Games was the first official Games to introduce integrated sustainability in terms of economy, society and environment. The Vancouver Organising Committee for the 2010 Olympic and Paralympic Winter Games (VANOC) set new sustainability standards for the Games to build 'increased awareness about sustainable solutions for business, communities and individuals and encouraged action on local and global sustainability challenges' (IOC, 2012b:44). The City of Vancouver also announced the greenest city action plan a year before the Vancouver Winter Games. The sustainability initiative was a road map that laid plans for staying on the cutting edge of sustainable city development (City of Vancouver, 2012). Gregor Robertson, the 39th mayor of Vancouver, promoted the greenest city action plan in his lunch speech to the Vancouver Economic Development Council.

> Green is about far more than the environment. Green is social sustainability and the local economy as well. It's the many Vancouver enterprises from small café to the auto repair shop to the insurance agency. (Robertson, 2009:10)

By implementing the sustainability strategy known as the 'Greenest City 2020 Action Plan' for Vancouver, the Vancouver 2010 Winter Games was a part of the project to deliver a sustainable legacy (Holden et al., 2008). In 2006, VANOC established a six part sustainability plan as a part of the Vancouver Olympics experience, based on their bid document. They set up six sustainability performance objectives to leave sustainable legacies to host communities as well as to minimise the impact on environment.

Table 2 4 VANOC's Sustainability Performance Objectives

Category	Aim	Detail
Economy	Accountability	- To behave ethically, set measurable performance targets and communicate openly about our

		progress and challenges - To consult with external groups affected by our activities
	Economic benefit	- To demonstrate that sustainable innovation and practice make good business sense
Society	Social inclusion and Responsibility	- To conserve accessible Games that have a positive impact on socially and economically disadvantaged groups that otherwise would not benefit - To care for our workforce, protect human right and ensure healthy and safety
	Aboriginal Participation and Collaboration	- To partner with the Four Host First Nations to achieve an unprecedented level of Aboriginal participation in the Games
	Sport for Sustainable Living	- To use sport, and growing athlete and public interest in living more sustainability, to inspire action on local and global sustainability challenges
Environment	Environmental stewardship and impact reduction	- To conserve natural environments and manage, mitigate and offset negative impacts.

(Source:VANOC, 2007:7)

As shown in the table above, the Vancouver 2010 Games promised sustainability initiatives, especially relating to the social dimension of sustainability, to be delivered through the Games. While many countries rejected bids to host sports mega-events through referenda, the decision to host the Vancouver 2010 Games was made through a

local referendum. The support of local residents was due to City of Vancouver and VANOC presenting social sustainability commitments (VanWynsberghe et al., 2011).

2.3.3.2 London 2012 Summer Olympic Games

After the successful sustainable Olympics in Vancouver, London won the right to host the Summer 2012 Olympic Games in July 2005. London 2012 was first Olympics that applied ISO 20121, an event sustainability management standard to improve the sustainability of events. In accordance with the Olympics' new commitments, the City of London and the London Organising Committee of the Olympic Games (LOCOG) submitted 'London 2012 Olympic Bid Legacy Aspirations' in their candidature file as a potential host city for the 2012 Olympic Games. In the legacy plan for sustainability, the UK government showed their intention that the London 2012 Olympics should deliver a wide ranging sustainable legacy, with economic, socio-cultural and environmental aspects, throughout the UK and at the Olympic Park, a key venue for the Games, in particular. Keogh (2009) asserts that the major reason London won the right to host the 2012 Games was that they presented a clear action plan to deliver a sustainable legacy from the Games to East London, which is the most deprived area in the capital, and to the wider UK. As presented in the bid file, the London 2012 Games offered opportunities to 'stimulate a vital economic regeneration programme in London's poorest and most deprived area' (LOCOG, 2004:23).

In 2007, the 'London 2012 Olympic Bid Legacy Aspirations', which was to be included in the final presentation to the IOC session as well as in their candidature file, was developed by the UK government as, 'Our Promise for 2012: How the UK will benefit from the Olympic Games and Paralympic Games' (see table 2.5). The LOCOG embraced the concept 'Towards a One Planet Olympics', setting out plans for a sustainable event in the partnership with Bio-Regional and World Wide Fund for Nature (WWF), which included five key sustainability themes: Climate Change, Waste, Inclusion, Healthy Living and Biodiversity. The London 2012 Games' sustainability initiative was a part of 'Thames Gateway project', which aimed at economic growth and improved quality of life through major transport infrastructure provision.

Table 2 5 London Olympic Legacy Promises

Legacy Promise	Details
Promise 1	We will make the UK a world-leading sporting nation (p.6)
Promise 2	We will transform the heart of East London (p.9)
Promise 3	We will inspire a new generation of young people to take part in volunteering, cultural and physical activity (p.12)
Promise 4	We will make the Olympic Park a blueprint for sustainable living (p.15)
Promise 5	We will demonstrate the UK is a creative, inclusive and welcoming place to live in, visit, and for business (p.18)

(Source:DCMS, 2008a)

2.3.3.3 PyeongChang 2018 Winter Olympic Games

After three successive attempts, PyeongChang, belonging to the Gangwon province of South Korea, won the right to host the 2018 Winter Olympics. It was the first Winter Games in Korea and the second Olympic Games, following the Seoul 1988 Summer Olympic Games.

Staging the Seoul 1988 Games had a direct positive economic impact on the country, as well as providing an opportunity to promote 'a coming out party for South Korea' (Bridges, 2008:1939). Even though the contribution of those Games to development in Korea was positive in various respects, it is commonly argued that later sports mega-events (the 2002 World Cup and the 2014 Incheon Asian Games) have not been well-planned in terms of sustainability. In particular, the 2014 Incheon Asian Games, which was most recent sports mega-event in Korea, left a massive deficit and many 'white elephants' after the event. To overcome these limitations of the sports mega-events held in Korea, the PyeongChang 2018 Games presented its major sustainability themes under five key areas: (1) Low carbon green Olympics; (2) Stewardship of the nature; (3) Good life; (4) Proud people and (5) PyeongChang opening to the world (POCOG, 2015).

PyeongChang 2018's OGI report, published by the Research Institute for Gangwon (RIG), sets out the host's goals for sustainable legacies as follows.

Table 2 6 OGI Indexes by Sector for PyeongChang 2018

Category	Aim	Detail
Economy	Forming the foundation for growth in eastern and central part of the Korean Peninsula	- Confirming the basis for creative growth - Jump start of global tourist destination - Successful hosting of the Olympics
Society & Culture	Creation of social capital	- Activation of regional communities - Increased quality of living - Mature sense of consciousness and culture
Environment	O2 Plus	- Building necessary systems against climate change - Organisation of sustainable city

(Source:POCOG, 2017a)

As seen above, despite a common goal of hosting sustainable event, the approaches to sustainability plans for previous Olympic Games were slightly different. This is because the situation surrounding the host countries varied considerably in terms of the level of development in each state, as well as the economic, socio-cultural, environmental and political conditions. Notwithstanding the differences in sustainability plans, the IOC has come up with common criteria for hosting a sustainable Olympics, in terms both of content and procedure.

Table 2 7 Common Characteristics of the Sustainable Olympic Games

Content-wise	Procedure-wise
- Accessible and inclusive setting	- Define your vision, mission and

for all safe and secure atmosphere - Minimal negative impacts on the environment - Positive benefits on the environment responsible sourcing - Excellent customer experience - Encourages more sustainable behaviour and healthy living - Economic benefits - Positive legacy	policy - Define your key objectives - Develop and implement a Sustainability Management System (i.e. ISO 20121) - Define roles and responsibilities and involve other FAs in the delivery phase - Transparency and disclosure (i.e. GRI Guidelines)

(Source: POCOG, 2015:15)

In conclusion, there have been many changes in the way that IOC deals with sustainability in the Olympic Games since the Lillehammer 1994 Games. The Vancouver 2010 Olympics and London 2012 Olympics were, respectively, the first Winter and Summer Olympic Games to use TBL frameworks officially (IOC, 2014a). Sustainability in sports mega-events is no longer an environmental dimension, hosting eco-friendly event. In particular, it can be seen that previous Games have created concrete sustainability plans for delivering sustainable and long-term legacy that the government promised and planned. Moreover, in order to be executed as originally planned, the governance of sustainable legacy from sports mega-events is designed and implemented at regional level: hosting and non-hosting region.

2.3.4 Sustainability and Leveraging

As interest in promoting sustainability through sports mega-events has increased, so research on the relationship between sports mega-events and sustainability has grown exponentially in volume and diversity since the Olympic Movement's Agenda 21. However, rather than integrating the concept of sustainability, previous research has focused on each dimension of sustainability separately: the economic aspect (Rose and

Spiegel, 2011, Kasimati, 2003, Clark, 2008, Blake, 2005, Preuss, 2004), the social impact (Hall, 1992, Higham, 1999, Fredline, 2005, Kim et al., 2015), and the environment aspect (Collins et al., 2007, Collins et al., 2009, Friedman et al., 2001, Schmidt, 2006). Recently, the environmental dimension of sustainable sports mega-events has begun to attract more interest, relative to the economic and social dimensions. Yet it is the integration of the three dimensions of sustainability that distinguishes it from 'event leveraging'.

Prior to the introduction of the concept of sustainability to the field of sport event studies, many studies have focused on strengthening the short-term impact of sport events over the long-term. As the importance of the impact of a sport event on host state grew, an expanding body of literature exploring sport event leveraging for host communities has developed. Chalip et al. (2004) define event leveraging as strategic activity that maximises the short-term and long-term impacts of an event. The concept is derived from sport tourism, and has tended to focus on the economic benefits of sport events, such as destination image and tourist attraction. Although the economic impact on the host community is the dominant concern for policy-makers and stakeholders, social aspects of sport events have also been examined in the context of event leveraging (Fredline and Faulkner, 2001, Kim and Uysal, 2003). According to O'Brien and Chalip (2007:320), event leveraging is inextricably linked with sustainability: "The purpose of event leveraging is to be proactive in planning for the creation of specific event benefits for the host community, and taking strategic measures to make those events sustainable". However, they also point out that despite increasing concern for the environmental impact of sport events, research on event leveraging does not take the environmental aspect into consideration. In line with this, Preuss (2014) argued that while 'leveraging' develops new opportunities out of the initial activity, 'sustainability' refers to longer-lasting impacts beyond the initial activity. As a result, the terms 'sustainability' and 'event leveraging' are used to describe broad approaches to the study of sports mega-events. However, those terms are often understood wrongly, and employed interchangeably. The key point to distinguish 'sustainability' from 'event leveraging' is that sustainability entails an integrated approach, taking into consideration the environmental dimension.

2.4 Conclusion

This chapter has comprehensively reviewed and explored the idea of sustainability, discussed fundamental concepts and definitions of sustainability in general and, more specifically, outlined key aspects of sustainability based on the 'Three-Legs Approach': economic, social and environmental sustainability. In addition, the chapter also explored the discourse of sustainability and how it has evolved through sports history. The literature review process is essential for this research, as it has helped to situate the concept of sustainability clearly in context of sports mega-events.

Firstly, it can be concluded that the terms 'sustainability' and 'sustainable development' are still elusive and vague. Since the Rio Summit in 1992, the concept of sustainability has continuously developed from a solely environmental issue to a global agenda for our common future. It is highly desirable that the economic growth takes place in parallel with environmental conservation. From the long term perspective, economic growth is possible only when underpinned by protection of the natural environment and its finite resources. Therefore, when economic growth is carried out in order to meet human beings' basic needs, it should not exceed the environmental capacity of the ecosystem. Similarly, it cannot ignore the impact of economic activity on quality of life (the social dimension). This means that sustainable development requires an integrated approach that is economically, socially and environmentally well balanced, as sustainability is multidimensional concept, consisting of economic, social and ecological dimensions.

Secondly, it has been shown that sustainability is an essential factor in making sports mega-events viable in the future. As sports mega-events have evolved into a multinational phenomenon in recent decades, they have developed the potential to be a strong catalyst for sustainability (Mol and Zhang, 2011). Given that research on sustainability in the context of sports mega-events tends to focus exclusively on just one aspect of sustainability (economic, social, or environmental), there has been lack of analysis of the sustainability legacies of sports mega-events which balances all three dimensions. The discourse around issues of sustainability in relation to the Olympic Games has mostly focused on the environmental dimension over the last few decades, reflecting the

emphasis on this dimension in Olympic Agenda 21. However, Olympic Agenda 2020 has developed the understanding within the Olympic Movement that sustainability is a multidimensional concept. As shown by (Toohey, 2012)(259)(259)(TOOHEY, 2012)Toohey's research, the discussion of Olympic sustainability has been extended to the question of whether the Olympic Games can be held in the future or not (Toohey, 2012). Moreover, many candidate cities for Olympics have cancelled their bids for the right to host the events following public referenda, due to concerns about the economic burden involved. It could be argued, therefore, that it is imperative that sustainability has been integrated into the plan for hosting sports mega-events across all phases (Hall, 2012).

Lastly, there has been growing demand for concrete plans for hosting sustainable sports mega-events. As the first sustainable Winter and Summer Olympics, Vancouver 2010 and London 2012 have each delivered a wide range of sustainable legacies. Through Olympic Agenda 2020, the sustainability plan has become a significant phenomenon rather than a short-term trend. As sustainability is a broad and complex concept, however, the sustainability plan for sports mega-events must always be adapted to the specific context of the host country. In addition, given that the principal objectives of sports mega-events are not decided by politicians alone, but have to reflect the interests and perspectives of various stakeholders, sustainability plans for sports mega-events should include step-by-step and concrete implementation strategies, which take specific local contexts into account, from the planning through to the impact evaluation stages.

In the next chapter, I will provide an overall explanation of previous sports mega-events in Asia, including the Tokyo 1964 Summer Olympic Games and the Beijing 2008 Summer Olympic Games, the Seoul 1988 Summer Olympic Games and the 2002 FIFA World Cup in South Korea. This provides a broader understanding of the characteristics of the current situation in hosting states in the region in the context of sports mega-events.

CHAPTER 3 East Asia and Sports Mega-Events

Before looking more closely at legacies from the PyeongChang Winter Olympics, it is necessary to consider the historical contexts of sports mega-events in South Korea as well as the host venues as it is helpful for the overall understanding of the main aim of this research. The purpose of this chapter is to provide priority knowledge about the host venues, including geographical features, sporting history and a brief overview of the sports mega-events in Asia and South Korea. There are four key sections within this chapter, each of which outlines brief information about South Korea and sports mega-events held in South Korea and Asia. In the first section, I highlight the previous sports mega-events held in Asia and their legacy; 1964 Tokyo Summer Games and 2008 Beijing Summer Olympic Games. The second section begins with an account of general features, including general geographical and climate information about South Korea, Gangwon province and the host cities of the PyeongChang Winter Games: PyeongChang county, Gangneung city and Jeongseon county. Finally, the last section presents a historical and political review of South Korea, specifically of the twentieth century, in the contexts of sports policy and sports mega-events held in South Korea and their legacy: the 1988 Seoul Summer Olympic Games and the 2002 Korea-Japan FIFA World Cup.

3.1 Previous Sports Mega-Events and Their Legacy in Asia

This section provides a general overview of the most iconic sports mega-events held in Asia: the Tokyo 1964 Summer Olympic Games in Japan and the Beijing 2008 Summer Olympic Games in China. As part of the preparation period process, the host countries adopted strategies for showcasing their transformation to a modern metropolis and their national identity in the context of sports mega-events. Those sports mega-events each took place at different points in each country's growth trajectory and modern development history, with different domestic and international situations. Given East Asian countries' characteristic of pursuing a state-led approach (Child Hill and Kim, 2000), sports mega-events in Eastern culture need to be contextualized by their historical narrative, including general information, the bidding process, the political background and their legacies. In

that sense, it might be helpful to understand the overall process of hosting the PyeongChang 2018 Winter Games in Korea.

3.1.1 Tokyo 1964 Summer Olympic Games

The 1964 Summer Olympic Games were held in Tokyo in Japan from 10th October to 24th October that year. It was the first Olympic event in the history of the Summer Olympics in Asia. In total, 93 nations took part in the Games, with a total of 5,151 athletes (4,473 men, 678 women) participating. This Olympic programme featured 163 events across 19 sports (IOC, 2013a). Japan has been participating in the Olympics since it first did so in the 5th Stockholm Olympic Games in 1912. The Summer and Winter Olympic Games, which were scheduled to be held in Japan, were cancelled due to the outbreak of World War II. The occupation of Japan, which was ruled by the Allied Forces after its defeat in World War II, ended in 1952, and Japan had previously bid for the 17th Olympics in Tokyo in 1960, but they ultimately lost out to Rome. Japan once again launched a bid to host the following Olympics. Japan won the bid to host the 18th Olympic Games following a vote by the IOC on 26th May 1959 at the 55th IOC session held in Munich, West Germany, having competed against Detroit (USA), Vienna (Austria) and Brussels (Belgium).

The 1964 Summer Games in Tokyo, as a defeated country in World War II, became an opportunity to normalize the nation again. Japan's unconditional surrender on 15th August 1945 marked the end of the long-standing World War II, but also the beginning of the Cold War era. With the effectuation of the Potsdam Declaration, the Supreme Commander of the Allied Powers started to rule Japan. The Empire of Japan was virtually dismantled, and the Korean Peninsula, which was Japan's colony, was divided and occupied by the United States and the Soviet Union. It was also called the occupation of Japan, the first and last period in Japanese history in which it was ruled by a foreign country. In 1952, with the effectuation of the Treaty of San Francisco, the occupation of Japan officially ended and Japan regained its sovereignty. Ironically, with enormous support from the United States, which had dropped the atomic bomb, Japan made the Olympic Games its stage from which they could let the world know its situation. Japan's intention was to

make the international community aware of its re-emergence as a newly born and redeveloped Japan, not its image as the defeated nation of World War II.

The Tokyo Olympics left hard and soft legacies in various fields. First of all, the Olympics was a significant catalyst of the urbanization of their capital in the process of modernisation. According to an official report (1966), they had already developed an urban renewal plan ten years before winning the rights to host the Olympic Games. This infrastructure development scheme included road construction, harbour facilities, water supply development, housing and tourist accommodation at a five-year cost of US$2.7 billion, but relatively less than 3 percent of the total budget for modernising Tokyo was spent on Olympic sports facilities (Liao and Pitts, 2006). The following transport infrastructure project was completed in time for the Tokyo Olympics: 22 main motorways, two tube lines and a monorail from Haneda Airport. The transportation infrastructure was built not only to meet the traffic management requirements during the Olympic Games, but also to take into account urban growth in the long term. In addition, the Tokyo Olympics was an opportunity to open up Japan's postwar technological development to the world. The Shinkansen, the world's fastest bullet train at that time, was opened ten days before the Olympics' opening ceremony. It was also the first Olympic Games to be broadcasted around the world via satellite in geostationary orbit and the first live broadcast across the Pacific (Slater, 2000).

The Tokyo Olympics in 1964 also delivered soft legacies both internally and internationally. Domestically, the Tokyo Olympics was supported by its nation, which had once again raised the pride of the Japanese, who were trampled as a defeated country in World War II (Tagsold, 2011). In addition, Japan took third place in the rankings in the Olympics held in its own country, after the United States and the Soviet Union, drawing enthusiastic response from its people. It was the highest ranking in the Olympic history of Japan, along with third place at the Mexico City 1968 Olympics. The Olympics was a triumph for Japan, both athletically and diplomatically, and made Japan more international. As Tagsold (2009: 1) points out, the 1964 Tokyo Olympics had used 'subtle politics' to restore national pride through symbols of nationalism: the Hinomaru (Rising Sun flag), 'Kimi Ga Yo' and the Emperor (tennō). At the time of the Olympics, Japan was

in a mood to regain its sovereignty from its allied occupation, and in response to such public opinion, conservatives used those symbols of imperial Japan in the Olympics. The Hinomaru flag was restricted during the American occupation of Japan and it had been criticized for its association with Japan's militarist past since World War II. However, they officially adopted the symbol in the Tokyo Olympic Games (Satoshi, 2011). 'Kimi Ga Yo' was also criticised for the same reason but was used as the national anthem of Japan in the Games. Moreover, Emperor (tennō) Hirohito of Japan officially opened the Tokyo Olympics at its opening ceremony, despite the fact that he was a suspected war criminal from World War II two decades ago. In that sense, the controversial political symbols had not only served as a catalyst to unite the Japanese people but also as a signal of Japan's return to the international community as a peaceful nation.

3.1.2 Beijing 2008 Summer Olympic Games

The Beijing 2008 Summer Olympic Games, the games of the 29th Olympiad, was the first Summer Olympic Games in China and the third Summer Games in Asia, after the Tokyo 1963 Summer Games and Seoul 1988 Summer Games. The Olympic Games were also the third Olympic Games held in a socialist state, following the Moscow 1980 Summer Games and the Sarajevo 1984 Winter Games. The Games were hosted from 8th to 24th August 2008 in Beijing, which is the capital of China, with 204 states competing under the slogan 'One world, One dream'. In the Beijing Summer Games, 10,942 athletes (4,637 women, 6,305 men) participated in 302 events across 28 sports (41 disciplines). China mounted a bid to host its first Olympic Games in 2000; it lost out to Sydney, but Beijing was selected as the host city on 13th July 2001 during the 112th IOC session in Moscow, defeating bids from Toronto, Paris, Istanbul and Osaka. The Beijing Olympics was also important because it was the first Olympic Games not to have been supported by the United States.

Before analysing the Olympic legacies from Beijing, it is necessary to understand the situation of China. As China had been experiencing high economic development for a few decades, they hoped to improve their national image in the eyes of the world through a sports mega-event. As demonstrated by Gottwald and Duggan (2008: 339), the Beijing

Games was "a political spectacle which intend[ed] to create a façade of sustainable and equal economic growth in China while creating a new world power". As the first state to host the Olympic Games among BRIC countries (Brazil, Russia, India and China), the Beijing 2008 Olympic Games were a critical milestone for globalization and socio-economic transformation. From their first bid for the 2000 Summer Olympic Games, China had set up a national plan to uplift and promote its new national image using sports mega-events (Fang and Xiang, 2011, Xu, 2006). The state-led Olympic strategies left a wide range of tangible and intangible legacies. First of all, the Beijing Olympic Games were the catalyst for the creation of an Olympic urban scheme. The Chinese government invested US$40.9 billion in its urbanization, accounting for about 91 percent of the total cost of the Beijing Olympics of US$44.7 billion (Horton and Saunders, 2012). The urbanization and development programme for the Olympic Games included sports facilities, transportation, infrastructure and urban renewal across the whole city beyond the Olympic area throughout the 11th Five-year Plan from 2006 to 2010. Most of the sports facilities, which were located in Olympic Green, a purpose-built 2,800-acre park, were built in the old Asian Games Park, which was originally built in 1990. Horton and Saunders (2012) state that the transportation in Beijing as an Olympic legacy played the most significant role in metropolitanising Beijing rapidly. Eight new tube lines, including two special lines from the airport to Olympic Green, three ring roads and a new intercity railway were constructed in the pre-Olympic period, along with 1,000 km of motorways and 84 km of railways (Harris, 2006). However, the urban project for the Olympics caused many side effects as negative legacies. Over 150 million Chinese people were forced to move as part of the Olympic beautification (COHRE, 2007).

The main aim of the Chinese government was to host a 'Green Olympics'. Environmental protection was prioritized throughout the preparation process, with strict environmental regulation (IOC, 2012b). In addition, the environmental issues were considered a major problem in selecting the host right (Mol, 2010). The main issues for a Green Olympic Games were air quality, water pollution and the handling of waste in Beijing. To make air clean, they took actions to curb air pollution and clear the smog, with a sustainable development plan investing US$5.4 billion (Owen, 2005), including: 1) moving factories causing air pollution to outside Beijing; 2) reducing or stopping the schedules for building

construction sites and power stations weeks before the opening ceremony of the Beijing Games and 3) imposing new emission control regulations on vehicles (Marvin, 2008).

3.2 General Description of South Korea and Host Cities

3.2.1 South Korea and Gangwon Province

South Korea, officially called the Republic of Korea, occupies the southern half of the Korean Peninsula, which is geographically located in the north-east of the Asian continent. South Korea is made up of a mainland, which shares a border with North Korea, and about 3,200 islands. South Korea has 100,363 square kilometres of land area and it is ranked in 109th place around the world. The territory of South Korea is almost as large as that of England, which is 130,279 square kilometres in size. The state has 2,413 km of coastline, , along the Yellow Sea, which faces China, and the East Sea, which is a marginal sea between Korea and Japan. In 2018, the entire population of the world was 7.7 billion and South Korea's was 51,422,507, ranking it in 27th place in the world (KOSIS, 2018b). Gangwon Province accounts for 3 percent of the whole South Korean population at 1.55 million. Most of the population of the Republic of Korea tends to be concentrated in and near Seoul, which is the capital of South Korea. The Seoul Special City, Inchon metropolis and Gyeonggi Province comprise 49.4 percent of the total Korean population. According to the World Bank (2018), South Korea is highly urbanized, with 81.5 percent of the population in urban areas and only 18.5 percent of the population living in rural areas. Given that the urban population in 1960 was 27.7 percent, South Korea is one of countries that have rapidly urbanized in the last few decades, at a far higher rate than the OECD average of 37.49 percent as of 2016. The administrative divisions of South Korea are divided into local and provincial governments. Local governments comprise 17 cities: one special city, six metropolitan cities, one special autonomous city and nine provinces including one special autonomous province. The climate of South Korea is temperate with four distinct seasons. Summer in Korea is hot and humid and is affected by the North Pacific anticyclone, and winter is cold and dry under the influence of a continental anticyclone. Spring and autumn are clear and dry, and are affected by a migratory high pressure.

Gangwon Province, including the host cities of the 2018 PyeongChang Winter Olympics, consists of seven cities and 11 counties. This province is a mountainous and forested area in the north-east of South Korea. The area of Gangwon Province is 16,873.5 km^2, which covers 16.8 percent of South Korea's total land mass. The population of this province is 1,543,780 (men: 777,040; women: 766,740) (KOSIS, 2018a). In regard to the land area and population of Gangwon Province, the population density of Gangwon is 90 per square kilometre, which is very low compared to the 513 per square kilometre of the population density of South Korea. Also, the population density of Seoul, the capital of South Korea, is 16,154 per square kilometre (Statistics Korea, 2017). In addition, the proportion of the local elderly population aged over 65 in Gangwon Province is 18.1 percent, with 279,976 inhabitants, which is much higher than the 13.8 percent in South Korea (Gangwon Statistical Information, 2017). This province is also a land of mountain wildness with four national park destinations and the most representative mountain region of South Korea. The area of woodland in Gangwon Province is 13,783.68 km^2, accounting for 81.5 percent of Gangwon, and it is the highest figure in South Korea (Korea Forest Service, 2015). Gangwon Province is divided geographically and climatically into Yeongseo and Yeongdong by the Taebaek mountain range, which stretches across North Korea and South Korea. The climate of the two regions, Yeongdong and Yeongseo, has very different characteristics. The Yeongdong region, which is connected to the East Sea, has many weather characteristics of an oceanic climate, whereas the Yeongseo region is located in the central inland area, showing characteristics close to a continental climate.

These climatic and geographical advantages have made Gangwon Province a region representing Korean winter sports, and the 1999 Asian Winter Games were hosted there. In addition, more than half of the ski resorts in South Korea are located in Gangwon Province. Ironically, however, those climatic and geographical features have, relatively speaking, delayed the establishment of economic and social infrastructure, leaving the province behind other Korean provinces in terms of development and prosperity. Also, for political reasons in South Korea, the Republic of Korea has developed around Jeolla Province, Gyeongsang Province and Seoul, the capital of the Republic of Korea, and the rest of the region, especially Gangwon Province, is much less developed than other

regions.

3.2.2 Host Cities

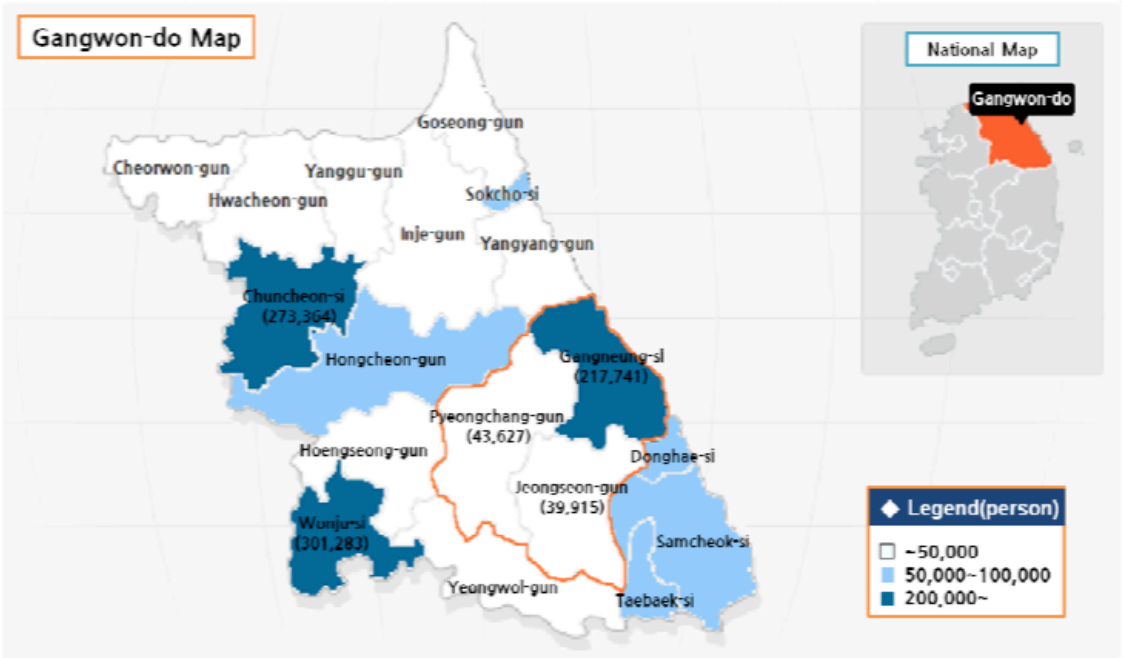
The three host cities for the 2018 Winter Games, namely PyeongChang, Gangneung and Jeongseon, are located in the north-east of South Korea. Sports and competition venues are largely divided into the PyeongChang Mountain Cluster, where most of the outdoor snow competitions took place, and the Gangneung Costal Cluster, where the indoor ice competition took place. The Alpine skiing events (downhill, super-G and combined) were held in Jeongseon county.

PyeongChang is a county consisting of seven townships and one town in central and southern Gangwon Province. This county, the third largest county in South Korea, is situated about 245 km south-east of Seoul, which is the capital of South Korea, and 40 km west of the East Sea. Located in the Teabaek mountain range, PyeongChang is generally high with an average altitude of 600 metres. In particular, the three sides of the north, west and east of PyeongChang are surrounded by high mountains and the south side is a sloping terrain. The total area of PyeongChang is 1,464.16 km^2, accounting for 8.7 percent of the total area of 16,873.5 km^2 in Gangwon Province. PyeongChang county has a humid continental climate with warm summers and cold winters. Its winters are generally snowy and longer than its summers. The average temperature of PyeongChang is lower, at 7.0 °C, than that of other areas in Gangwon Province, at 8.9 °C, due to the inland plateau characteristics.

Gangneung is one of the major cities in Gangwon Province, located at the centre of the east side of the Taebeak mountain range. Gangneung city is a 30-minute drive away from PyeongChang. The area of Gangneung is 1,040.4 km^2, which corresponds to 6.2 percent of the total surface area of Gangwon. Since the city is a coastal city, it has an oceanic climate with cold winters, and hot and humid summers. However, due to its geographical characteristics, its summers are relatively cooler and its winters milder than in other parts of South Korea.

Jeongseon county is located in the south-east of Gangwon Province and is adjacent to five townships and four towns. Most of this county is mountainous, and connects the Yeongdong and Yeongseo areas. Jeongseon's total area is 1.219.9 km², which is 7.2 percent of the area of Gangwon Province. This county is the fourth largest area in Gangwon, but its population density is low at 31.1 per square kilometre. Jeongseon has a continental climate because it is located within the Taebaek mountain range, with cooler summers and very cold winters.

Figure 3 1 Map of Gangwon Province



(Source:RIG, 2013:21)

In conclusion, Gangwon Province had the most favourable geographical and climatic conditions for the Winter Olympics in South Korea. While it has an outstanding natural environment for winter sports, Gangwon-do is relatively less developed than other provinces in South Korea in terms of overall economic, social and demographic information. In addition, Gangwon is the only province on the Korean Peninsula that directly experiences the division of territory due to the division of Korea. The POCOG stressed the positive impact the PyeongChang Olympics would have on Gangwon Province, as follows:

> PyeongChang 2018 is expected to provide a new hope for Gangwon Province, where its potential for development and prosperity has been hampered due to the external factors despite its abundance of natural resources and significant potential. PyeongChang 2018s will become a momentum for revamped vigor for development and innovation and inter-Korea stability and peace-building, I.e. key messages of the Olympism and precondition for sustainable development (POCOG, 2015: 17).

3.3 Historical Review of South Korea in the Context of Politics and Sports Events

The twentieth century was a tumultuous period for Korea. The Joseon dynasty, which lasted for approximately five centuries from 1392, was ended by the Japanese occupation period. Korea under Japanese rule, which began as a part of the scramble for colonies of Japanese imperialism in the late nineteenth century, lasted from 1910 to 1945 (Ok, 2005). The atomic bomb dropped on Japan in 1945 led to unconditional Japanese surrender, which directly affected Korea's independence as well as ending World War II. After its liberation from the Japanese colonial period in 1945, military forces from the United States and the Soviet Union occupied the Korean Peninsula, which was divided into south and north at the 38th parallel. At the end of the Moscow Conference of Foreign Ministers of the United States, the United Kingdom and the Soviet Union in December 1945, they announced that a five-year trusteeship had been negotiated for the creation of conditions for developing countries. Given the geographical advantage of the Korean Peninsula in terms of security between China and the Soviet Union, the United States needed to stay in Korea to influence Korea in order to thwart the Soviet Union's plan to establish a Soviet-friendly state in Korea (Shin, 2004). The ideological confrontation between the United States and the Soviet Union in the Korean Peninsula directly triggered the division of Korea as a victim of the Cold War (Kihl, 1984). With support from the United States, Syngman Rhee was elected as the first president of the Republic of Korea in 1948. In terms of North Korea, they had a close relationship with the Soviet Union and elected Kim Il-sung as their supreme leader of the Democratic People's Republic of Korea, also known as North Korea, in 1948. This division of Korea left not just geopolitical lines on the map but ideological confrontations that still exist as a controversial issue in the

Korean Peninsula.

In this section, I will offer overall information about sports mega-events held in South Korea, namely the Seoul 1988 Summer Olympic Games and the 2002 Korea-Japan World Cup, along with the hosting process of those sports mega-events and their legacies, based on its political background.

3.3.1 Seoul 1988 Summer Olympic Games

The 1988 Seoul Olympic Games, also known as the Games of the 24th Olympiad, were the first sports mega-event held in South Korea and the second Summer Olympics in the Asian continent after the 1964 Tokyo Olympic Games in Japan. The 24th edition of the Olympic Games, which took place from 17th September to 2nd October 1988, was the largest sport events in the history of the Olympics, with 159 countries participating under its slogan 'Harmony and Progress'. In this Summer Olympics, a total of 8,397 athletes (6,197 men, 2,194 women) were sent to Seoul from 159 states, competing in 237 events across 23 sports, with 27,221 volunteers helping to prepare the Olympics and 11,331 media representatives (4,978 from the written press and 6,353 broadcasters). The Games had the largest number of participants in Olympic history, with the greatest number of nations being represented despite a boycott by North Korea, which had hoped to co-host the Olympics, and its allies Cuba, Ethiopia and Albania. Indeed, the 1988 Seoul Summer Olympic Games were seen as an opportunity to break up the Cold War relations between the communist Eastern Bloc and the capitalist Western Bloc, and to enter a mood of reconciliation. The Korean Peninsula, a nation divided by civil war, had come together with many states in the world in the face of the confrontation between the USA and the Soviet Union. In particular, the Moscow Summer Games in 1980 were boycotted by more than 60 countries, including the USA, due to the Soviet invasion of Afghanistan. The next edition of the Olympic Games, the 23rd, held in Los Angeles in 1984, was also boycotted by 18 Eastern European countries, including the Soviet Union. At a time when the Olympics was at such a critical juncture due to ideological confrontation, the successful hosting of the 24th Olympic Games in the divided nation could have paved the way for a

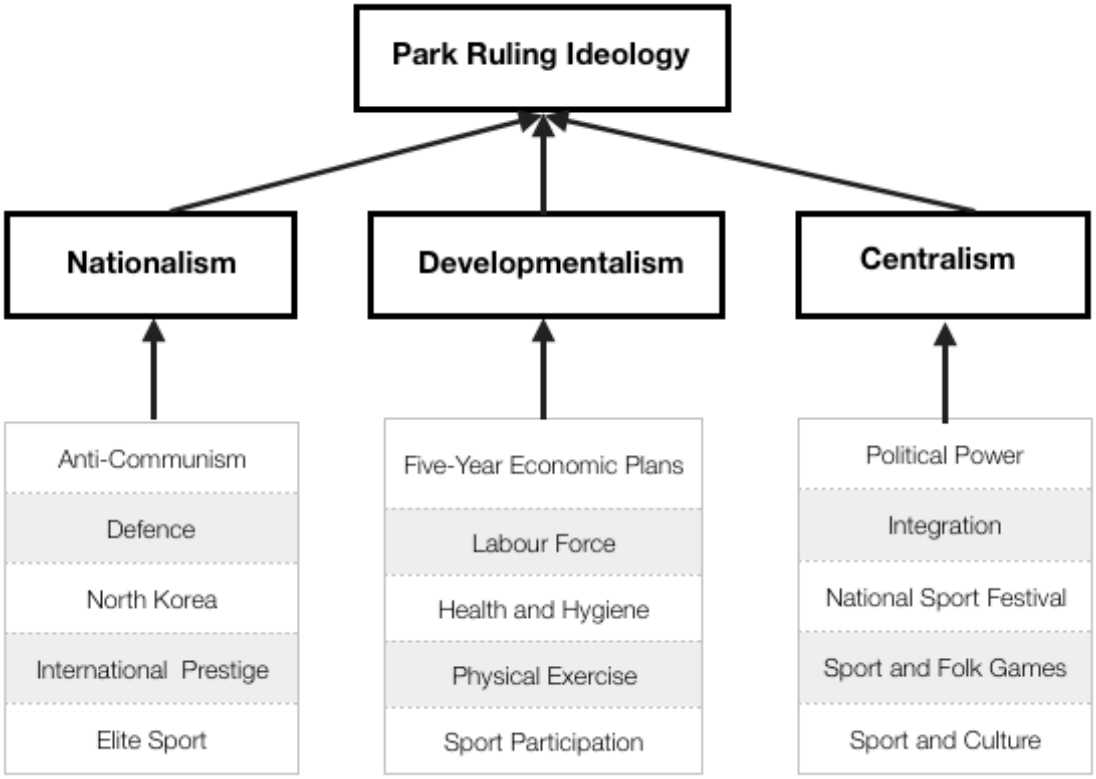
new turning point toward a thaw in the icy tension of the Cold War. In the case of South Korea, the 1988 Seoul Olympics was a 'coming out party for the Koreans' (Bridges, 2008:1939) and 'an economic springboard' (Horton and Saunders, 2012:898). This Olympics was also the second to be held in a developing country following the Mexico 1968 Summer Olympic Games. In addition, through the 1988 Olympic Games, South Korea showed that it was possible to leap from being a developing to an advanced country (Joo et al., 2017b).

3.3.1.1 Political Background

As a result of the political conflict of the Cold War, the Korean War began with an attack by North Korea on 25th June 1950 and lasted for three years. The civil war between South Korea, supported by the United States, and North Korea, supported by Russia and China, left a number of human casualties and an ideological dispute that affected them until the present. Since the truce, the internal and external conflicts of both sides have continued. After the armistice in July 1953, Korea split into South and North Korea and United States troops were stationed in South Korea until the present day. Then, South Korea entered an era of dictatorship under Park Chung-hee, who served as the fifth, sixth, seventh, eighth and ninth President of South Korea from 1963 until his assassination in 1979, a period also known as the Third Republic. On 16th May 1961, Park seized power in a military coup aimed at anti-communist, pro-American and economic reconstruction. After a successful *coup d'état*, he won a total of 4.72 million votes, about 46.6 percent of the votes cast, with a 84.99 percent turnout, and was inaugurated officially as the fifth president in October 1963. However, he assumed the dictatorial powers that had been in place from 1972 to 1979 through the October Restoration, also known as the October Yusin. In the case of Park Chung-hee, his long experience in both the Japanese and the Korean military influenced him to internalize the authoritarian military culture in his mind (Yoon, 1979). Therefore, Park's political position and the description of his beliefs represented a dichotomy for those who had different opinions as enemies. Due to all the traits of an authoritarian leadership that he possessed, his policymaking process was a non-democratic and hierarchical structure (Kihl, 1984).

During the Park Chung-hee regime, South Korea experienced steep economic growth through three editions of the five-year plan for economic development from 1962 to 1976. However, the economic growth-first policy of the government intensified the gap between rich and poor as a result of distorted resource allocation (Yang, 2003). Park Chung-hee's ruling ideology consisted of 'nationalism', 'developmentalism' and 'centralism'. As shown in Figure 3.2, the ruling ideology of the Third Republic was closely related to sports policy. In addition, Park's government pursued nationalism in order to give legitimacy to the regime obtained by the coup and to lay the groundwork for economic development. During the Park Chung-hee regime, physical education and elite sports also became the main policy under the slogan 'physical strength as national power', along with economic development. Moreover, support for elite sports to enhance national prestige was also reinforced. The Korean Olympic Committee (KOC) planned to host the Summer Olympic Games in recognition of successfully hosting the 42nd World Shooting Championships, which were held in Seoul in 1978. In the late 1970s, Park Chung-hee planned to host the Olympic Games, by improving diplomatic relations with the USA and gaining a clear advantage in the competition against North Korea. The president stated that one of the main goals of hosting the Olympics was to show off the country's economic power and international capability and to benefit from the advantageous position in terms of diplomatic relations with communist and non-aligned states (Oberdorfer and Carlin, 2013). However, due to Park Chung-hee's assassination in 1979, the plan to host the Seoul Olympics was completely suspended.

Figure 3 2 Ruling Ideology and its Relationship with Sport



(Source:Kim, 1999:78)

When the long-term dictatorship ended due to the assassination of Park Chung-hee in 1979, the expectation of the democratization era spread among the people in South Korea. Army general Chun Doo-hwan, however, took power in 1980 as the 11th and 12th president through an indirect presidential election system without public participation after a military *coup d'état* on 12th December 1979. This was the Fifth Republic, which governed South Korea from 1980 to 1988. There was also a democratization movement in response to the ongoing authoritarian government during this period. The Gwangju pro-democracy uprising in 1980, also known as 'Korea's Tiananmen', was one of the most important milestones in the history of democracy in South Korea (Scott-Stokes et al., 2000). A minimum of 600 and a maximum of 2,000 civilians died as a direct result of the uprising.

During the Chun Doo-hwan regime, he imposed the 3S (Sports, Sex and Screen) policy to distract public attention due to the lack of legitimacy (Cho, 2008). Hence, supported

by Chun, the authoritarian government planned to host the 1988 Summer Olympic Games and launched professional baseball and football leagues in the early 1980s. In other words, the Fifth Republic of the Chun Doo-hwan regime did not consider sports in terms of the welfare of the people but started to give massive support to sports in order to maintain public interest in politics. Ha and Mangan (2002) state that the policy was not only a turning point of the nation's interest from politics to sports, but led to limited political participation on the part of the Korean people. In terms of sports events, Lee (2006) demonstrated that the Fifth Republic focused on a successful hosting of the 1986 Asian Games and the 1988 Seoul Summer Olympic Games that could lead to national integration and global attention in order to use sports to rule the people. Although the 10th president of South Korea, Choi Kyu-hah, officially announced that Korea was set to give up the bidding process and the president of the KOC, Park Jong-kyu, who had led the Olympic bid, also resigned for political reasons, Chun Doo-hwan reinitiated the Olympic Games bid and officially submitted an Olympic bid file to the IOC on 30th November 1980. In addition, as a rehearsal for the 1988 Seoul Olympic Games, they planned to host the 1986 Asian Games to test the venues and facilities to ensure successful hosting of the Olympic Games. Although the Olympic bid strategy should be led by the hosting city (Seoul), Chun Doo-hwan's administration had a state-led strategy to host the Seoul Olympics. Chun Doo-hwan's ambitious bid to host the Olympic Games was largely influenced by the advice of Japanese right-winger Ryuzo Sejima. The former Japanese army officer advised Chun to host the Olympic Games or Expo as a huge rallying point for the South Korean people, which was based on Japan's experience. For Chun Doo-hwan, the Olympic Games, which can garner public interest and support in a short period of time and enhance a nation's prestige, was the perfect event to regain legitimacy, a weakness of the Fifth Republic, which won power in a coup (Kim and Choi, 2018). As a result of the government-wide efforts, Seoul won the right to host the 1988 Summer Games through a vote held on 30th September 1981 at the 84th IOC session in Baden-Baden, West Germany, finishing ahead of the Japanese city of Nagoya.

Repression of the ongoing democratization movement caused human rights problems and the June Struggle for Democracy, also known as the June Democratic Uprising, and international pressure led to the June 29 Declaration in 1987, which promised to amend

the constitution to provide for the direct election of the president. Chun Doo-hwan's successor, Roh Tae-woo, a former army officer, was elected as the 13th president of South Korea, ruling between 1988 and 1993, through the first free presidential election. It meant the end of the military dictatorship that had ruled South Korea since 1961 and also the beginning of the Sixth Republic of South Korea, which remains the current republic of South Korea. However, despite the acceptance of the demand for democratization in June, democracy in South Korea was not finished. The president-elect, Roh Tae-woo, was from the same party as the former president Chun Doo-hwan, as well as one of the members of a military coup in 1979 after Park Chung-hee's assassination. Notwithstanding the problems, the Roh Tae-woo regime symbolized the progress of democracy in South Korea and overcame the legitimacy of the previous regimes (Cotton, 1993).

3.3.1.2 Legacies from Seoul 1988 Olympic Games

The successful hosting of the Seoul 1988 Summer Olympic Games left behind a broad spectrum of legacies not only for Seoul but for South Korea. According to Bridges (2008), the legacies of the Seoul Olympics can be divided into three categories: economic, sociocultural and political-diplomatic.

Economic Legacy

In terms of economic legacy, Horton and Saunders (2012:898) describe the Seoul Summer Games as 'an economic springboard'. In the early 1980s, due to political issues and the oil shock, the economic situation in South Korea was very poor, including negative economic growth, an international balance of payments deficit and foreign debts. Since 1986, the economic situation had been turned into a balance of payment surplus due to the easing of conditions at home and abroad. Moreover, in 1988, it had recorded a surplus of US$14.2 billion. The economy of South Korea had taken on the trend of globalization and advancements since the Seoul Olympics in spite of side effects such as inflation, market opening pressure and trade friction with advanced states. The Seoul Olympics was an effective tool for promoting the capital of South Korea. South Korea had set aside US$3.6 billion to prepare for city's infrastructure for the Seoul Olympics

(one-third from the government, cities and private companies each). Large-scale urban renewal took place for seven years after the Seoul Olympics had been confirmed in 1981. This included sports facilities, including the main Olympic Stadium, three tube lines, the expansion of Gimpo International Airport to improve carrying capacity and beautification programmes (Bridges, 2008). One of the most impressive aspects was tourism, with the number of visitors being increased by about 37 percent in September 1988 compared to the previous year. As the number of tourists visiting has soared, international flights have been expanded, and domestic tourism-related businesses such as luxury hotels and travel agencies dealing with tourists have grown significantly (Xiaolei, 2006). In addition, after the 1988 Seoul Olympics, the Korea Sports Promotion Foundation was established with surplus money from the Seoul Olympics to operate Olympic stadia and facilities efficiently. With funds raised through the Cycle Racing, Horse Racing and Sports Gambling projects, the Korea Sports Promotion Foundation provides support for school and professional sports, research in sports science and the development of the sports industry.

Sociocultural Legacy

Second, in regard to sociocultural legacies from the Seoul Games, hosting the Seoul Olympics lifted the South Korean people's sense of identity and self-esteem (Close et al., 2006). The success in the Seoul bid against Japan (Nagoya), which dominated the Republic of Korea for 35 years in the early twentieth century, gave the Korean people the pride of "we did it" and the confidence that "we can do anything". It was the establishment of a firm sense of national pride, which provided an opportunity to escape from the psychological external subordination of a sense of national inferiority formed under the Japanese colonial rule society and the interference of the superpowers after liberation from Japanese colonial rule. In particular, the Seoul Olympics gave the South Koreans a sense of sovereignty that they are the masters of society. It promoted interest and participation in the Olympics and provided an opportunity to form voluntary social organizations such as for environmental protection and human rights protection. In addition, the Korea Sports Promotion Foundation, which was established to commemorate the Seoul Olympics, is currently operating to create an advanced sports

system so that people can enjoy a healthy life through sports. Therefore, the public's interest in sports, which had been boosted by hosting the Seoul Olympics, set a very solid foundation for developing sport for all (Lee, 2011).

Political-diplomatic Legacy

Finally, the 1988 Seoul Olympics left a wide range of political-diplomatic legacies. Since the Korean War, South and North Korea have continued ideological confrontations. Under these circumstances, the hosting of the Seoul Olympics in South Korea was a watershed event through which the South could pull ahead in the ideological competition. The South Korean government recognized and approached the bid not just as a sporting event but as a decisive factor in promoting South Korea's national image on the international stage and improving diplomatic relations with the socialist bloc. In 1988, when they hosted the Seoul Olympics, the South Korean president Roh Tae-woo announced the introduction of '*Nordpolotik*', also known as 'northern policy', which is a term modelled on Willy Brandt's *Ostpolitik* in West Germany. This diplomatic policy in South Korea aimed to improve relations with communist states such as the Soviet Union and China and create closer ties with North Korea. It was omnidirectional diplomacy aimed at reaching fruition in North Korea's peaceful collapse and absorption for peaceful unification through full diplomatic relations with other communist states (Kim, 2017b). In line with this perspective, Shin (2013) stated that the Seoul Olympics became a catalyst for expanding diplomatic ties with the socialist bloc in the East, culminating in diplomatic ties with the Soviet Union in 1990 and China in 1992.

Many researchers posit that the Seoul Summer Games played a major pivotal role in the democratization of South Korea (Pound, 1994, Bridges, 2008). When Seoul won the right to host the 24th Summer Olympic Games, the international community was embroiled in controversy over the fact that the Olympic Games, a symbol of peace and harmony, would be held in Seoul, South Korea, still in the shadow of military dictatorship. With Chun Doo-hwan in charge of suppressing Gwangju's demand for democratization with the military, the Chun government wanted to win international recognition for the legitimacy of the regime by hosting the Olympics. However, Chun's dictatorship had been under a

lot of pressure both at home and abroad, which ironically became part of the process of the fall of the military dictator and democratization. IOC vice-president Richard W. Pound states that there is no doubt that democratic consolidation was accelerated as a result of South Korea's effort to respond to the expectations of other countries around the world (Pound, 1994). Consequently, after the June Struggle in 1987, Roh Tae-woo, who was former president of the Seoul Olympics Organizing Committee and a candidate for the presidency, 'proposed his package of democratic reforms – the now-famous June 29 declaration' (Larson and Park, 1993:161). The declaration served as a decisive opportunity for the end of military dictatorship and for the establishment of the ideology and system of democracy in politics, society and culture. According to Bridges (2008), the Seoul Olympics was not the only reason for South Korea's democratic consolidation, but it had a significant enough positive impact.

Notwithstanding this series of positive legacies from the 1988 Seoul Olympics, there were some negative legacies. The first was the deterioration of relations with North Korea (Shin, 2013). As stated above, North Korea, which had been in a competitive relationship with South Korea after the Korean War, had launched a spoiling tactic against IOC members in order to deter South Korea from hosting the Olympics. Even after the Seoul Olympics had been confirmed, North Korea engaged in extreme interdiction activities such as boycotting the Olympics, war threats and the bombing of KAL flight 858 by a North Korean spy, which resulted in very difficult inter-Korean relations. Secondly, the large-scale urban beautification project had emerged as a basic human rights issue, such as housing demolitions, eviction and dislocation under the military authoritarian government (COHRE, 2007). The South Korean government hoped to show only positive parts of Seoul to the world through the Olympics, but a number of residents were forced onto the streets due to stadium construction and urban restructuring.

3.3.2 2002 FIFA Korea-Japan World Cup

3.3.2.1 Political Background

As Roh Tae-woo's successor, Kim Young-sam, a Korean politician and democratic

activist, was elected the 14th president of South Korea in 1993. The former president, Roh Tae-woo, had continued the tradition of military authoritarian governments, but the Kim Young-sam government ended the military government that had lasted for over 30 years since 1961 and established a civil government as the first Korean civilian president for over 30 years. Kim Young-sam was one of the three Kims, along with Kim Dae-jung, the 15th president of South Korea, and Kim Jong-pil, the former prime minister, who were both born in the 1920s during the Japanese colonial period and played a major role from the 1960s (dictatorship) to the early 2000s (democracy). He had been a leader of the opposition party, which was consistent with the struggle for democratization in the Park Chung-hee regime. In Kim Young-sam's presidency, they stressed an anti-corruption policy first and his administration adopted the words 'The Creation of a New Korea' as its new catchphrase. As a result, various political reforms were carried out, the first of which were political reforms related to the fight against corruption. The real-name financial system refers to the policy that all financial and property transactions must be taken under their own real name (Kim, 2015). He also mandated a massive purge on 'Hanahoe', which was an unofficial private group of military officers established in the early part of the Park Chung-hee regime. The disbandment of the illegal military group, including two predecessors, Chun Doo-hwan and Roh Tae-woo, served as a signal of the end of the military dictatorship regime. In addition, the former presidents, Chun Doo-hwan and Roh Tae-woo, were prosecuted for various crimes they had committed: bribery in their incumbency, and mutiny and treason for their roles in the military coup in 1979 and the Gwangju massacre in 1980. The two former presidents were each sentenced to imprisonment, with life imprisonment for Chun and 17 years for Roh. In particular, the real-name financial system was the most effective method to eradicate illegalities and corruption rooted in the dictatorship regime. He also made great changes in the government, the economy and the administration to alter the basic framework of the military dictatorship that had lasted for the last 30 years. In 1997, however, South Korea experienced a financial crisis, also known as the International Monetary Fund (IMF) crisis or Asian crisis, in the final year of Kim Young-sam's regime as part of Asia's financial crisis. South Korea faced an economic turndown and a lack of foreign currency liquidity. The Kim Young-sam government requested a bailout from the IMF. Hahm and Kim (1999) posit that Kim Young-sam backed away in ignominious retreat due to the financial crisis

at the end of his presidency.

In the early 1990s, the collapse of the Soviet Union led to the weakening of political and ideological confrontations with the fall of socialism. In line with the international situation, neo-liberal policies were officially implemented under the Kim Young-sam administration. The trend of neo-liberalism in South Korea, which appeared in the 1980s in the fifth republic, began in earnest in the early 1990s under the slogan 'segyehwa', which means globalization in Korean, and 'shin hankook', which means 'new Korea' in Korean. In his neo-liberal globalization drive, the first civilian president since the early 1960s suggested a full range of neo-liberal reforms for restructuring in almost every area, including politics, economy, military, finance, welfare, labour, education and law (Lim and Jang, 2006). However, sport was not included in his neo-liberal structural reform plan.

Unlike previous military governments' attempt to establish legitimacy through sport, the Kim Young-sam administration did not need to use sport for political purposes. He also accelerated the neo-liberal reform for restructuring to highlight its differentiation from the military regime, which affected sports policy. Apart from the fact that the sports policy of the previous regimes focused on elite sports, Kim Young-sam's administration showed a strong will to promote sport for all, which had been relatively less developed than elite sports. As a result of the overall reformation of sports policy, there was a progressive shift toward sport for all. In addition, the government reduced the level of subsidy for elite sports and downsized government sports departments. The budget allocated to sports and physical education decreased from 0.09 percent of the Korean government's budget in 1991 to 0.04 percent in 1995 (Son, 2003). The first five-year sports development plan, established by the Ministry of Culture and Sports in 1993, set up a goal of keeping elite sports in the top ten in the world and become more focused on winter sports and basic sports. The plan may be summarized as follows: 1) the nationwide spread of sport for all; 2) sustainable development of elite sports; 3) promotion of international sports cooperation; 4) promotion of sports science and 5) reinforcement of the government sports departments (Ministry of Culture and Tourism, 2005).

Kim Dae-jung, who served as the 15th president of South Korea from 1998 to 2003,

became the first president from the opposition party after his fourth bid for the presidency, succeeding Kim Young-sam. During Park Chung-hee's military regime, he was one of the most resolute crusaders for democracy of the century and led the opposition against Park's dictatorial power. Due to those democratic activities under long-standing authoritarian rule, he was persecuted and punished, first with long-term exile before being imprisoned and given the death sentence. In addition, Kim Dae-jung is the first and only Korean to have received the Nobel Peace Prize, in 2000, in recognition of his contributions to peace and reconciliation with North Korea and his efforts toward democracy and human rights. Thus, this regime is regarded as a more liberal administration than the previous government (Shin and Shaw, 2003). In Kim Dae-jung's presidency, its symbolic policy of engagement with North Korea was renowned as the 'sunshine policy', which is the policy towards North Korea. It was based on the three following principles: 1) North Korea's military provocations will not be tolerated by the South; 2) South Korea will have no intention to absorb the North and 3) South Korea will actively pursue cooperation with the North (Son, 2006). The Kim Dae-jung government enforced the North Korea policy consistently to relieve inter-Korean military tensions. Consequently, it achieved the historical 2000 inter-Korean summit, which was the first inter-Korean summit held since the Korean War.

Kim Dae-jung's government had a governmental philosophy that democracy and market economy are inseparably linked to neo-liberalism. Based on this philosophy, Kim Dae-jung's main government aim was the parallel development of democracy and market economy (Lee, 2004). In comparison with the former administration, Kim Dae-jung's administration was actively able to implement policies for social reforms. It was possible for the government to garner public support as they were the first government to achieve a peaceful transfer of power from the ruling party to a democratically elected candidate from the opposition party (Jung, 1998). In addition, Kim Dae-jung's government forced economic and administrative reform initiatives under external pressure. In 1998, Kim Dae-jung commenced his presidency in the midst of the IMF crisis that began with the financial turmoil in Kim Young-sam's regime. The IMF put forward various conditions, including the restructuring of companies and privatization of state-run companies, further opening up capital markets, and simplifying mergers and acquisitions. At the same time

as accepting these terms, the South Korean government was managed by the IMF and promised and was funded to run the national economy. For those reasons, this administration targeted 'a small but efficient government' to overcome the disastrous economic crisis into which South Korea had fallen and cope with the rapidly changing world situation (Kim, 2000).

In line with this policy direction, the sports policy of Kim Dae-jung's government was also affected by neo-liberalism like the previous government. The characteristics of the sports policy that Kim Dae-jung's government actively promoted were the decentralization of sports and a focus on a civilian-led sports policy rather than a state-led sports policy. In addition, the influence of the IMF crisis led to a small government, which led to a reduction of the overall sports administration organization (Kim, 2008). In line with this perspective, Kim's administration prepared the second five-year sports development plan, which was established by the Ministry of Culture and Tourism in 1998. The government selected six major projects in order to achieve the national target of social health: 1) expanding opportunities for participating in sports activities; 2) training sports leaders; 3) expanding complex sports facilities for various leisure activities; 4) supporting and legalizing the financial self-sufficiency fund of sports organizations; 5) supporting the improvement of the quality of sports equipment and 6) 2002 World Cup preparation projects (Ministry of Culture and Tourism, 2005). This direction of the government's sports policy was to create conditions to stimulate sport for all and to successfully host sports mega-events to revamp the depressed social atmosphere.

3.3.2.2 Bidding process for the 2002 FIFA World Cup

Unlike the Seoul 1988 Summer Olympic Games, which were planned under a military administration, the 2002 FIFA World Cup went from bidding process to hosting under democratic governments. South Korea applied to host the FIFA World Cup relatively late. Dr Joao Havelange, who was the FIFA president of the 1980, announced that the 2002 World Cup would be better held in Asia, rather than in Europe or South America. After listening to the advice of Dr Joao Havelange, the Japan Football Association was initially considering putting Japan forward as a potential host for the 2002 World Cup in 1989

(Varcoe, 2002). Japan officially announced its bid for the World Cup in January 1989 and organized a bid committee for the 2002 World Cup in 1991. They also launched the J-League, the Japanese Professional Football League, in 1992 to arouse national interest in football as a part of its efforts to host the World Cup (Joo et al., 2017a). Preparations and activities for the 2002 World Cup began in earnest on 13th January 1993, when Chung Mong-joon, a South Korean politician and businessman (sixth son of the founder of Hyundai), was elected 47th president of the Korea Football Association (KFA). Chung Mong-joon visited FIFA in June 1993 to announce his intention to host the World Cup, even though the government took a negative stance on bid participation due to Japan (Lee, 2011). However, Chung Mong-joon officially announced its hosting of the 2002 World Cup on 28th October 1993, with national support stirred by securing a ticket for the 1994 World Cup for the third straight time.

In addition, South Korean president Kim Young-sam put forward 'Hosting the 2002 World Cup in South Korea' as one of his presidential election promises. As a part of their effort, the bid committee for the 2002 World Cup was officially launched on 18th January 1994. In December 1994, Korea submitted to FIFA an official letter requesting to host the 2002 World Cup and a bidding competition for hosting the 2002 World Cup between South Korea and Japan began. The first diplomatic meeting was held between the South Korean Foreign Minister, Han Seung-joo, and his Japanese counterpart, Yohei Kono, to discuss co-hosting the 2002 World Cup. This meant avoiding either side being upset by overheated competition to host the 2002 World cup (Moffett, 2003). However, Japan repealed their position regarding co-hosting the World Cup a short time later. As mentioned by Horne and Manzenreiter (2013), Japan was assured of hosting the World Cup alone because they had strong support from FIFA president Joao Havelange.

However, after KFA president Chung Mong-joon was elected vice-president of FIFA in 1994, the situation changed rapidly. His election gave a boost to the bid for the 2002 World Cup due to the distinct advantage of being able to lobby the FIFA Executive Committee (Horne and Manzenreiter, 2013). As FIFA president Joao Havelange openly expressed his support for Japan, members of the FIFA Congress from Europe, South America and Africa, including the Union of European Football Associations (UEFA), rose

in revolt against him (Horne and Manzenreiter, 2013). In the face of fierce competition for hosting the World Cup, Asia Football Confederation (AFC) president Sultan Ahmed Shah presented a new idea in April 1996, in which South Korea and Japan would co-host the World Cup. The co-hosting of the 2002 World Cup not only received the support of FIFA Congress members, but Lennart Johansson, president of UEFA, expressed his approval of the co-hosting. In response, Japan and FIFA finally decided to accept the co-hosting. FIFA unanimously approved the 2002 World Cup co-hosting of Korea and Japan at an executive committee meeting held in Zurich in 1996. Meanwhile, the FIFA executive committee announced that the opening game of the 2002 World Cup would be held in Korea and the final match would be held in Japan, as he confirmed the schedule for the 2002 Korea-Japan World Cup.

3.3.2.3 Legacies from the 2002 Korea-Japan World Cup

The 2002 World Cup was one of the major catalysts in reviving South Korea's stagnant economy due to successive structural reforms of the corporations caused by the IMF financial crisis. Park (2009) found that the 2002 Korea-Japan World Cup generated an economic impact of 16.81 trillion won, including the creation of value-added products worth 5.33 trillion won and the production inducement effect of 11.47 trillion won through 3.47 trillion won of investment. In addition, around 350,000 jobs were created and maintained during the preparation for, and hosting of, the 2002 World Cup (Lee, 2001). In terms of indirect economic effects, the World Cup led to the development of construction, advertising, marketing, broadcasting, tourism and sports industries through the World Cup, and improved the recognition of foreign investment through enhancing the national image promoted by direct investment by foreigners (Kim et al., 2006).

In the context of sociocultural legacy, interest in sport for all, including football, increased as the Korean national football team reached the semi-finals, and the number of sports facilities and the population of sports activities also increased with public participation. In addition, with the unexpected results of hosting the World Cup and reaching the semi-finals, street cheering created a new cultural trend called the 'Red Devils', which resulted in a national unity effect by spreading the sense of community (Baek, 2017). This

suggests that the 2002 World Cup was an opportunity for the whole of South Korea to gain national pride and confirm a new sense of community. In particular, it achieved the restoration of national pride damaged by the IMF financial crisis, which had to be supported by the IMF, and the confirmation of new possibilities for public and national development. On 31st May 1996, the FIFA Executive Committee decided to hold the 2002 FIFA and the World Cup games jointly by Korea and Japan. The competition, which started with various issues such as IMF financial affairs, became a joint project of the two countries' organizing committees' personnel and working-level officials and officials to resolve issues through exchange, make excellent preparations and hold the competition, and become a model for co-hosting.

In addition, the success of the FIFA 2002 World Cup greatly contributed to the establishment of friendly South Korea-Japan relations through mutual cooperation. As stated earlier, there had been historical conflicts between the two host countries due to Koreans' colonial memories and this had continued to this point. Although the co-hosting of the World Cup could not completely settle their complicated conflicts, such as feelings of nationalism and a negative mutual image, it served as an opportunity to ease political and diplomatic tensions and promote South Korea-Japan relations in a new era (Choi, 2002, Horne and Manzenreiter, 2004, Heere et al., 2012). Moreover, the success of the World Cup resulted in a wide range of national image promotions, such as Dynamic Korea, Asian Hub and IT Korea, which were the slogans of the World Cup.

However, several of the ten World Cup stadiums remained 'white elephants' after the tournament was over. Although most of these stadiums are used as home stadiums for South Korea's professional football teams, half of the World Cup stadiums located in Seoul and other major cities across the country are run on tax money despite the deficit. This is because many local governments have difficulty paying back debt, and because of the interest burden, and maintenance and management costs of billions of won per year for each stadium, let alone the collection of construction costs, since no thorough plans had been made to take into account the post-use of the stadium (Park, 2012).

3.4 Conclusion

This chapter has examined general information concerning South Korea as the host venue of the PyeongChang 2018 Winter Olympic Games and sports mega-events held in Asia along with their legacies. In addition, the chapter has also provided political and historical backgrounds to the sports mega-events and their legacies, namely the 1988 Seoul Summer Olympic Games and the 2002 FIFA World Cup, in the context of sports policy.

First, there has never been a sustainable Olympics in Asia officially. Given that Vancouver was the first hosting city for the Olympic Games to adopt sustainability officially, almost none of the sports mega-events in Asia considered applying sustainability. Even though the Beijing Olympics claimed to stand for 'Green Olympics', it was not the official sustainable Olympic Games. This suggests that a multidimensional discussion about economy, society and environment must take place from the bidding stage to deliver a sustainable legacy from sports mega-events and not to leave behind 'white elephants', which waste taxpayers' money.

Second, the legacy from sports mega-events held in Asia was directly connected to the economic and political situation of the host country. In the case of South Korea, the legacy of the Seoul 1988 Olympics, planned by the military authoritarian regime with a state-led economy, was focused on urban regeneration and the development of soft power, while the legacy plan of the 2002 World Cup, planned by democratic governments with a market-led economy, tended to focus more on the spread of sport for all. These findings suggest that the legacy of sports mega-events is moderated by the government's economic and political context (Müller and Gaffney, 2018). As the legacy of sports mega-events is not generalized and transferred, it must take into account various aspects of the background of each sports mega-event in order to specify what legacy the government has planned and delivered.

Third, all sports mega-events held in the Asian continent were "all products of a significant historical nodal point" (Horton and Saunders, 2012: 891). In the case of the 1964 Tokyo Olympics, the Games were seen as a national task of promoting Japan as an

advanced country to the world, which had achieved a national revival and rapid economic growth following its defeat. The 2008 Beijing Olympics was used for its globalization and socio-economic transformation through opening China's market as a global power. South Korea successfully hosted the Seoul 1988 Olympics, demonstrating to the world its astonishing economic achievement after the Korean War in the 1950s, also known as the 'Miracle on the Han River', as part of a massive effort to join the international community. In addition, the 2002 FIFA Korea-Japan World Cup was able to recover from the economic recession caused by the IMF financial crisis and rebrand its national image abroad. This means that every sports mega-event reflects the host nation's agenda and inspiration formed by its historical and geographical circumstances. Therefore, it is necessary to carry out empirical research on the historical and political background of stakeholders such as national government and local government, from the bidding stage to the post-event stage, in order to fully understand the process of forming sports mega-events legacies.

In conclusion, an empirical investigation of sustainability requires an identification of the sustainability legacies of sports mega-events. Notwithstanding the growing importance of sustainability in sports mega-events, there is a comparatively small body of research on the actual sustainable legacies of such events. Unfortunately, there have been fewer studies focusing on legacy issues in relation to Winter Olympic Games than either the Summer Olympic Games or the World Cup (Alberts, 2011). The primary aim in this research is to identify and investigate the sustainable legacy of sports mega-events through empirical data from the Olympics (the Vancouver 2010 Games and the London 2012 Games) regarding their overall sustainability strategies, and also from the 2018 Winter Games in PyeongChang.

In the following chapter, the methodology adopted for this research is presented. The main methods adopted for the research include document analysis and semi-structured interviews. A case study approach is used to focus in on an analysis of the sustainability legacies of the PyeongChang Winter Olympic Games.

CHAPTER 4 Research Methodology

This chapter introduces the research strategy and specific research methods for data collection that underpin this research. Considering the importance of qualitative research, it is crucial to understand the ontological and epistemological assumptions that underlie different research backgrounds (Grix, 2019). The ontological and epistemological assumptions underpinning research are widely regarded as the researcher's view of reality. Those philosophical assumptions offer 'particular sets of lenses for seeing the world and making sense of it in different ways' (Sparkes, 1992, 12).

First, the aim of the research needs to be addressed. The main purpose of this study is to analyse an ideal type of sustainable legacy for sports mega-events in South Korea. The broad aim includes the following objectives:

- To analyse the legacy strategies did the two previous Olympics in Vancouver and London use to develop sustainability
- To identify the discrepancies in the plan for a sustainable legacy of the PyeongChang Olympics between the bid proposal and actual realisation
- To identify factors to consider for a sustainable post-SME legacy in Korea

To answer these questions, a wide range of philosophical and methodological questions must be considered. This chapter is divided into four sections. First, the author's ontological and epistemological assumptions are reviewed. Second, the rationale for choosing and using specific research methods, which are linked to the researcher's ontological and epistemological approach, will be discussed. The third part of this chapter discusses the research methods and tools used to collect data for this study. Finally, the issues of the validity and reliability of the study are considered in the last part of this chapter.

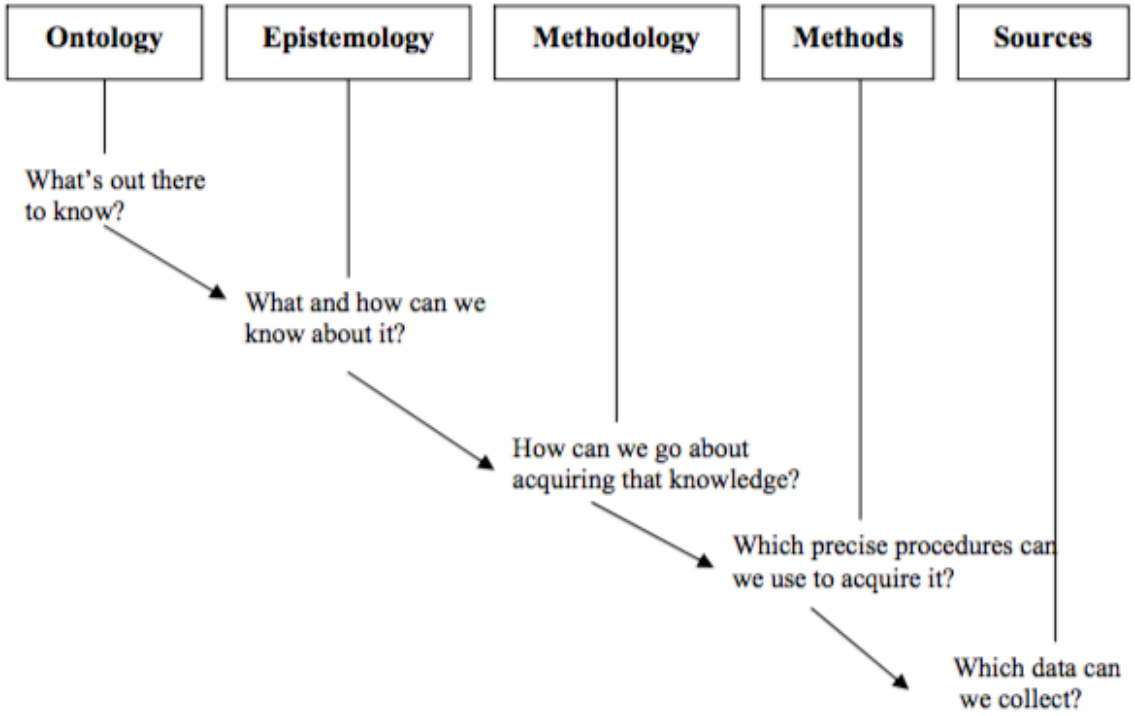
4.1 Philosophical Approaches to Qualitative Research Methods

This chapter begins with the precise definitions and concepts of the qualitative research methods adopted for this research. Given the variety of uses of the terminology applicable to qualitative research, there is a need to point out that ontology and epistemology are key terms in the philosophy of knowledge and the research process, especially in the social sciences. Furlong and Marsh (2010:17) argued that those ontological and epistemological assumptions are 'like a skin not a sweater', that is, they should not be swapped and changed but rather should remain consistent within a research project. The ontological and epistemological assumptions form the foundation of the research, which is guided by the deep philosophical assumptions that determine the nature and purpose of the research (Sparkes, 1992). It is important to recognise that different paradigms provide a different view of reality, and thus, there are various interpretations of how the social world can be known (Blaikie, 2007). Grix (2019:57-58) offered three explanations for why ontological and epistemological assumptions are so important:

1) To understand the interrelationship of the key components of the research (including the methodology and the methods),
2) To avoid confusion in the discussion of the theoretical debates surrounding and approaches to social phenomena,
3) To be able to recognise others' stances and defend our own positions.

In line with this perspective, it is important to bear in mind the directional relationship between ontology, epistemology, methodology, method and sources as shown below in Figure 4.1. According to Grix (2019), methodological approaches based on specific ontological and epistemological positions represent a choice of the research methods employed in the research. Hay (2002:63) also suggested that 'ontology relates to the nature of the social and political world, epistemology to what we can know about it and methodology to how we might go about acquiring that knowledge'.

Figure 4 1 The Interrelationship Between the Building Blocks of Research



(Source:Grix, 2019:68)

4.1.1 Ontological Assumptions

Ontology is considered as the starting point of research, especially in the social sciences. The definition of ontology is the study of being (Crotty, 1998). Ontological assumptions seek to find answers to the following questions: 'What is there that can be known?', 'what is the nature of reality?', and 'where do we look for it?'. According to Blaikie (2007:6), ontology 'refers to the claims or assumptions that a particular approach to social (or, by extension, political) enquiry makes about the nature of social (or political) reality – claims about what exists, what it looks like, what units make it up and how these units interact with one another'. In line with this perspective, ontological assumptions are made about the nature of the social reality which is investigated. Based on these considerations, Grix (2019:60) posited that 'ontology is logically prior to epistemology', and the two fields of philosophy are inextricable tied. As claimed by Sparkes (2012:12), ontological assumptions also 'revolve around questions regarding the nature of existence, that is, the very nature of the subject matter of the research'. Broadly speaking, objectivism and constructivism are specified as two essential parts of an ontological position. Objectivism is an ontological view that there is an objective reality which exists independently apart

from the mind. Objectivism asserts that 'social phenomena and their meanings have an existence that is independent of social actors' (Bryman, 2015: 29). The key point of this approach is that social reality has an existence that is independent of social actors. Hence, objectivists focus on identifying the cause of social behaviour to establish the causality between social phenomena (Furlong and Marsh, 2010). On the contrary, constructivism, as an ontological position, perceives that social reality is created from the perceptions and actions of the social actors concerned with its existence. Constructivism asserts that 'social phenomena and their meanings are continually being accomplished by social actors. It implies that social phenomena are not only produced through social interactions but are in a constant state of revision' (Bryman, 2015: 29).

4.1.2 Epistemological Assumptions

Epistemology is, literally, 'a way of understanding and explaining how we know what we know' (Crotty, 1998:3). Epistemology is usually defined as the science or philosophy of knowledge. Whereas ontological assumptions seek to answer the question of what really is, epistemological assumptions are aimed at answering the question 'what is knowledge and how do we know things?' (Thomas, 2009) or 'what we can know about it?' (Hay, 2002). According to Blaikie (2009), epistemology is also one of the key points of the philosophy of knowledge and is concerned with the theory of knowledge. In other words, Grix (2019) underlined that epistemology focuses on 'how we come to know what we know'.

According to Grix (2019), there are two types of epistemological positions: foundationalism and anti-foundationalism. Foundationalists believe that reality exists independently of our knowledge of it. Ladyman (2002) defined foundationalism as follows:

> In epistemology the theory according to which our justified beliefs fall into two categories, namely basic beliefs, which are justified independently of all other beliefs, and non-basic beliefs, which are those that are justified by their inferential relations to basic beliefs. Foundationalism comes in different varieties depending on whether basic beliefs have to be certain or can be fallible (265-266).

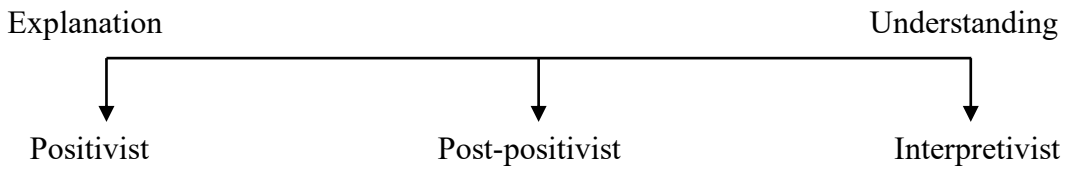
On the other hand, central to an anti-foundationalist view is that 'there is not a "real" world, which exists independently of the meaning which actors attach to their action, to discover' (Furlong and Marsh, 2010:19). There are a number of epistemologies, including empiricism, rationalism, falsificationism, neo-realism, constructionism and conventionalism (Blaikie, 2007). Briefly, empiricism is based on the idea that knowledge comes from sense-experience (Hume, 1978). Blaikie (2007, 20) put forward a notion that 'any scientific idea that cannot be confirmed by observation is meaningless and has no role in science'. This view of empiricism is very different from rationalism, which is based on the idea that knowledge is gained by reasoning (Walliman, 2015). Falsificationism asserts that theory cannot be proved, but it must be possible to falsify it. Karl Popper's falisificationism pointed out the demarcation criterion problem, which distinguishes empirical science from non-science. He called attention to the fact that scientists should be attempting to falsify, instead of verify, scientific hypotheses (Hansson, 2006). Neo-realism asserts that 'a scientific theory is a description of structures and mechanisms which causally generate the observable phenomena, a description which enables us to explain them' (Keat and Urry, 2011, 5). Constructionism is associated with the idealist ontology, i.e. that reality is made by the human mind (Blaikie, 2007). The epistemology of constructionism shares the view that 'knowledge is the outcome of people having to make sense of their encounters with the physical world and other people' (Blaikie, 2007:95). Conventionalism posits that 'scientific theories are created by scientists as convenient tools for dealing with the world' (Blaikie, 2007:95). Whilst conventionalism shares the view of constructionism that reality is related to the creation of the human mind, in conventionalism, reality is assumed to be an invention of scientists.

4.2 Research paradigms

In this section, I will discuss three major ontological and epistemological assumptions in the traditions of research, also known as the research paradigm: positivism, critical realism, and interpretivism. In research, the often-confused concepts of research methodology and method have sometimes led to discussions that only address the appropriateness of the research method, omitting the methodology. However, the

concepts of methodology and method differ significantly. Methodology is a research stage in the discussion of whether the research method adopted by researchers in accordance with their ontological and epistemological stances is appropriate (Mason, 1996). That is, if a research method is a specific means of gathering data, such as in-depth interviews, observations and surveys, to analyse social phenomena, the research methodology should be understood as a high-level concept addressing the appropriateness and the potential advantages and disadvantages of the chosen study. In line with this perspective, researchers first set up a methodology to understand a particular social phenomenon based on their own ontological and epistemological approaches. A research strategy is chosen to determine the appropriate research methods for collecting the data based on the research methodology. This means that the philosophical foundation of the research should serve as a guide for the direction of the overall research. The 'paradigm', which is widely attributed to Kuhn (1970), has been described as a model of research and an established academic approach in a specific discipline (Grix, 2019). Broadly speaking, there are three basic epistemological assumptions. They are usually referred to as: positivism, interpretivism and critical realism. Grix proposed a continuum which presents an overview of the positions of those three paradigms (see Figure 4.2). In order to adopt the specific ontological and epistemological stances for this study, these epistemological assumptions must be explained.

Figure 4 2 The Key Research Paradigms



(Source:Grix, 2019:79)

4.2.1 Positivism

First, positivism, which is also often treated as a realist and foundationalist epistemology, is an epistemological assumption that 'advocates the application of the methods of the natural sciences to the study of social reality and beyond' (Bryman, 2015: 24). Positivists

believe that 'only verifiable claims based directly on experience could be considered genuine knowledge' (Patton, 2002:92). According to Bhaskar (2014:27):

> Positivism stresses that there are causal generalities, at work in social life. It is also correct to insist (when it does) that these laws may be opaque to the agents' spontaneous understanding. Where it errs is in the reduction of these laws to empirical regularities, and in the view that it is thereby committed to the process of their identification.

In line with this perspective, the approach of positivists is to formulate a hypothesis and to investigate and explore the causes of phenomena. More specifically, positivists adopt a hypothetico-deductive approach to discovering law-like relationships among measurable constants at the empirical level (Hempel, 1965). Many researchers have adopted a positivistic paradigm in the social sciences through the use of quantitative methods (Maxwell, 2012). As Guba (1990:19) noted, researchers 'must stand behind a thick wall of one-way glass', and the role of positivists should strictly protect their data from contamination by artificial manipulation or the researcher's involvement. However, positivism has attracted criticism from other academics because it has a limitation, i.e. that social structures are affected by many external influences, such as the actions of agents in social science (Furlong and Marsh, 2010). According to Sayer (2000:6), the 'internal relations in social systems fall outside the ontological grids of positivism, which systematically misrepresents society by presenting such phenomena as reducible to independent individuals or atoms'.

4.2.2 Critical realism

The critical realism paradigm offers an alternative view, i.e. that 'scientific principles … are capable of capturing the nature of reality' (Blaikie, 2007:59). This approach shares the positivist's view that there is an external and independent reality. In contrast to positivism and interpretivism, critical realism attempts to balance two assumptions. Furlong and Marsh (2010:31) provided the core view of realism:

> There was a difference between 'real' interests, which reflect material reality, and perceived interests, which might be manipulated by powerful forces in society. Given this

> view, we cannot just ask people what their interests are, because we would merely be identifying their manipulated interests, not their 'real' interests.

As stressed by Bryman (2015), the big difference between positivism and critical realism is the perceived reality. According to positivists, reality means what is observable, whilst critical realists take the view that what is observable is just one conception of reality.

4.2.3 Interpretivism

Unlike positivism, interpretivism is an alternative epistemological assumption that 'is predicated upon the view that a strategy is required that respects the differences between people and the objects of natural sciences and therefore requires the social scientist to grasp the subjective meaning of social action' (Bryman and Bell, 2015:17). The point of this approach is to gain in-depth insight into the lives of the respondents, to gain an empathetic understanding of why they act in the way that they do. Interpretivists share the view that the world is constructed socially, whilst positivists believe the world exists independently of our knowledge of it. In line with this perspective, Grix (2019) argued that the interpretivism approach emphasises the role of both agents and structures. Broadly speaking, interpretivism is an effective way to appreciate the existence of causal explanations with reference to the interpretive understanding of social action, rather than viewing only external forces with no meaning for those involved in that social action (Bryman, 2015).

However, this approach has also been subject to criticism. The major criticism of interpretivism is its reliability and validity due to the description of the collected data, which is impacted by the researchers' viewpoints about the world. As stressed by Fay (2014), interpretivism fails to offer a subjective view of reality. This is because interpretivists tend to focus only on the meaning of social action. In this context, Furlong and Marsh (2010) argued that interpretivism tends to provide subjective judgements about the world compared to positivism. Hay (2002) also pointed out that the interpretivist approach cannot be used as a research tool for establishing the validity of knowledge due to its subjective opinions about social phenomena.

This study adopts interpretive ontological and epistemological assumptions to explain social reality and phenomena. The study explores the process of how the planning of the bidding phase for the sustainable legacy of the PyeongChang Olympics has become a reality. The main objective is to obtain an understanding of how the sustainable legacy plans of the PyeongChang Olympics set out in the bid book were implemented. By adopting the interpretive assumption, I will gain understanding and examine the meanings and motives behind the actions of stakeholders, in their social situation, looking at the whole stage from initial sustainable legacy plan to actual realization in various contexts of society. Therefore, in considering these stakeholders I will seek to understand the related political and social phenomena in various contexts. In order to understand and explain the discrepancies in the plan for a sustainable legacy of the PyeongChang Olympics, between the bid proposal and the actual realisation, there is a need to examine the social, political, and historical background of the PyeongChang Winter Games at all levels. An understanding of this background would help support the implementation of the sustainable legacy of the games.

To sum up, interpretivists aim to analyse the descriptive surface of the social reality by exploring the details, causal relations and explanations of social phenomena in depth. In this study, the interpretivist approach is used to understand the discrepancies in the plan for a sustainable legacy of the PyeongChang Olympics, between the bid proposal and actual realisation and the key factors in an analysis of the ideal type of sustainable legacy for sports mega-events in South Korea.

4.3 Triple Bottom Line as the Theoretical Framework of Choice

As the notion of sustainability emerged from the Brundtland Commission in 1987, it is no longer a new concept. The concept of sustainability brings together the overall economic, social and environmental issues that affect business practices: not only financial performance but also non-financial performance such as their impact on the environment and society. Moreover, sustainability is a method of countering various trends affecting sustainability, such as climate change, the depletion of natural resources

and energy poverty, in order to effectively utilise limited resources by linking business-critical parts to sustainable management activities. As described in the previous chapter, the Triple Bottom Line (TBL) was the main theoretical framework to integrate and evaluate the sustainability of the PyeongChang 2018 Winter Olympic Games. The term 'triple bottom line' is an accounting framework that incorporates the three parts of sustainability, i.e. the economic, social and environmental aspects, coined in 1994 by John Elkington. The traditional usage of the financial term 'bottom line' is the final total profits and losses in the account of a company or organisation. It is also known as the 3P: Profit, People and Planet. According to Elkington (1997:2), the triple bottom line refers to the approach of an organisation that focuses on 'economic prosperity, environmental quality and - the element which business has tended to overlook – social justice'. Savitz (2006:8) also asserted that the triple bottom line 'captures the essence of sustainability by measuring the impact of an organisation's activities on the world…. Including both its profitability and shareholder values and its social, human and environmental capital'. In line with this perspective, the triple bottom line approach has been adopted by many firms and organisations to report their sustainability. According to Deegan (1999), the TBL is an important part of the operation of firms with regard to how they provide accountability to their stakeholders as well as carry out their sustainability performance. In essence, the TBL is a collaborative effort to reflect the three dimensions of sustainability, i.e. economic prosperity, social justice and environmental protection, into a firm's evaluation and decision-making processes through the recognition of the three bottom lines as fundamental elements of corporate management.

First, the economic bottom line in the TBL refers to the impact of the practices of the business organisation on the economic system (Elkington, 1997). This bottom line has to do with the ability of the economy, one of the sub-systems of sustainability that can survive and evolve in the future, to support future generations (Spangenberg, 2005). In other words, the financial bottom line relates the growth of an organisation to economic growth and how well it contributes to supporting the economy. It emphasises the economic value that organisations provide to the surrounding systems, promoting and fostering their ability to meet the needs of future generations (Alhaddi, 2015). Second, the social bottom line means that the business organisation conducts beneficial and fair

business practices with respect to labour, human capital and the region in which the company carries out its business (Elkington, 1997). The concept of the social bottom line is that fair and beneficial practices provide value to the communities in which the businesses operate, returning the profits to the community. Corporate social performance is related to the interactions between communities and organisations and responds to issues related to employee relations, fair wages and community involvement (Goel, 2010). Social irresponsibility might have a negative impact on the company's business performance as well as an economic cost (Dhiman, 2008, Elkington, 1997). Finally, the environmental bottom line explains the impact that business practices have on the environment for future generations. It refers to effective methods for limiting the use of natural resources and the minimisation of the ecological footprint (Elkington, 1997). In order to efficiently implement resource conservation and eco-friendly strategies (greenhouse gas reduction, harmful chemical reduction, green production, etc.), the company should pursue an environmental health strategy through environmental regulations.

4.3.1 TBL in Sports Mega-Events

In response to concerns about sustainability in every corner of the world, the IOC, which participated in the 1992 Rio Summit, formed the Sports Environment Committee and signed the United Nations Environment Programme (UNEP) to integrate sustainability into the Olympics and related activities in 1995, three years after the Agenda 21 was established. The IOC ensures that sustainability is consistently reflected in the preparations for, hosting and managing of sports mega-events, which have a significant social and environmental impact on the host country and venue. The focus of the IOC is that the profits of the Games will always outweigh the negative effects and losses from the Games (IOC, 2014a). The concept of the TBL has been applied to various industries as a method for planning and evaluating the sustainability of businesses (Clarke, 2001, Molnar and Mulvihill, 2003) and events (Hede et al., 2003). Although substantial research of the terms 'sustainability' or 'sustainable development' has been undertaken over the past few decades, there has been relatively less research addressing the TBL. In addition, most of research on the operationalisation of the TBL has focused on business

performance in terms of the economic, social and environmental dimensions. However, unlike businesses, sports mega-events are characterised by a 'limited duration' (Ritchie, 1984) and as a 'one-time event for a particular place' (Getz, 2008). Those characteristics of sports mega-events may have nothing to do with sustainability. In line with this perspective, Bramwell (1997a) also pointed out that the short-term nature of sports mega-events could reduce the assessment of sustainability. O'Brien and Chalip (2008) were the first to consider the application of the TBL approach to sports mega-events. Subsequently, a significant and ever-growing body of scholarly work has sought to explain the social, environmental and economic impact of sports mega-events (Weiler and Mohan, 2010a). In response to global concerns about sustainability, the IOC, which participated in the 1992 Rio Summit, formed the Sports Environment Committee. To evaluate the exact impact of the Olympic Games, the IOC created the Olympic Games Impact (OGI). Officially, the OGI adopted the TBL as a set of measurable indicators. Bearing this perspective in mind, the TBL is adopted as a theoretical framework and divides the impact of sports mega-events into three categories: economic, social and environmental.

4.4 Methodological Considerations

In this section, an overview of the research design is provided. Methodological issues should be addressed within the ontological and epistemological approaches as noted in the previous sections. According to Sayer (2000:19), the specific research methods used should 'depend on the nature of the subject of study'.

4.4.1 Case Study

It is widely acknowledged that case studies have been used in various fields as a research method to collect data on social phenomenon. According to Creswell and Poth (2017:73), a case study is '[a] qualitative approach in which the investigator explores a bounded system (a case) or multiple bounded systems over time, through detailed, in-depth data collection involving multiple sources of information, and reports a case description and case-based themes'. Punch (2013) regarded a case study as a research strategy, not as a research method. However, Yin (2014:12) treated it as a research method, defining it as

an ‘empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used’.

The case study has been adopted in a wide range of areas of research to collect data: sociology (Hamel et al., 1993), education (Merriam, 1998) and political science (George and Bennett, 2005). As suggested by Yin (1981), the main characteristic of the case study method is the examination of a contemporary phenomenon in a real-life context, especially in contexts in which when the demarcation between the phenomenon and the context is unclear. He also insisted that the case study is an appropriate method for research questions such as ‘how’ and ‘why’ (Yin, 2014). The research questions explored in this study are: ‘How have other states developed sustainability?’ and ‘why were there discrepancies in the plan for sustainability of the PyeongChang Winter Games between the bid proposal and the actual realisation?’ Therefore, the case study method is considered to be the most appropriate for this study. Punch (2013:150) stressed the rationale for the choice of a case study as described below:

> The basic idea is that one case (or perhaps a small number of cases) will be studied in detail, using whatever methods seem appropriate. While there may be a variety of specific purposes and research questions, the general objective is to develop as full an understanding of the case as possible. (Punch, 2013)(367)(367)(PUNCH, 2013)

The case study method is not solely used in qualitative research (Yin, 2014, Creswell and Poth, 2017). This approach can also be utilised in quantitative research. According to Bryman (2015), qualitative and quantitative mixed methods enhance the strengths and benefits of each method whilst reducing their weaknesses and limitations. The main strengths of the case study method are the wide range of sources and techniques for data collection such as document analysis, interviews and questionnaires. In this research, I adopted document analysis and semi-structure interviews.

4.4.1.1 Limitations of the Case Study

In spite of the advantages of the case study method that provided the rationale for its

selection, the limitations of the case study method are similar to those of qualitative research and relate to the reliability and validity of the research (Patton, 2002). The critical debate surrounding the case study method on the basis of its reliability, validity and conceptual confusion has been ongoing since it was introduced. Based on these problems, the case study method has often faced the criticism that its research products are less independent or that it lacks accuracy and objectivity in its research methodologies. Merriam (1998) explained that the conceptual confusion related to the case study can be attributed to the fact that research elements within different categories of methodological procedures, research subjects, and final research outputs are used as categories of case studies. In addition, Yin (2014) argued that the conceptual confusion about case studies has arisen from the misconceptions of many researchers about case studies. Based on this consideration, he also asserted that there is a belief that in the field of social sciences, case study research is suitable for the stage of the exploration of the context of the whole research, but that experimental research should be conducted to identify explanatory or causal inquiries.

Yin (2014) argued there are common prejudices against the case study method. First, he pointed out the rigour in the process of reaching the result. It is clear that case study researchers have not followed systematic research procedures or have produced equivocal evidence and personally biased views that could affect the results and conclusions of the study. However, he argued that these problems can also arise in other research methods, such as in survey and experimental research. Compared to other research methods, there are fewer methodological texts providing investigators with the specific procedures to be followed in the case study method. For this reason, the problems with case studies have been more frequently encountered and less frequently overcome. However, this merely means that it is necessary to develop a research methodology that can guide researchers to increase the precision and rigour of their research and does not impugn the nature of the case study itself. The second most frequent complaint regarding the study case method is that it provides fewer opportunities for generalisation. Questions such as ‘How can you generalise the results of a single case?’ are common for researchers who have conducted case studies. However, in the case of experimental research methods, it is also hard to find scientific facts based on the results of a single experiment. In line with this

perspective, Maxwell (2012) insisted that generalisability in qualitative research is based on the development of a theory which can be extended to other cases; it is not based on the explicit sampling of a defined population to which the results can be extended. Yin (2014:21) also provided this brief answer regarding the concern:

> Case studies, like experiments, are generalizable to theoretical propositions and not to populations of universes. In the sense, the case study, like the experiment, does not represent a 'sample', and in doing a case study, your goal will be to expand and generalize theories (analytic generalization) and not to enumerate frequencies (statistical generalization).

Therefore, a multiple-case study is applied to compensate for and offset the limitations of a case study approach. According to Tsang (2014), a case study has more advantages in terms of theoretical generalisation than those of quantitative research. The main goal of this qualitative empirical research study is to formulate a generalised theory based on findings from the multiple cases.

4.4.1.2 Case Study Selection

The Vancouver 2010 Winter Olympics, the London 2012 Summer Olympics and the PyeongChang 2018 Winter Olympics were selected as cases for this study. Purposive sampling in qualitative research is widely used for selection of cases, which hold a wealth of information about the phenomena (Palinkas et al., 2015). This multiple-case study was selected because it can reflect a conventional discussion of sustainability for the Olympic legacy. First, the Olympics held in Vancouver and London were the first Winter and Summer Games to officially adopt sustainability goals from the bidding stage. Since the IOC has established sustainable development as one of the three pillars of the Olympic movement, these were the first Games where sustainability was officially considered are symbolically important.

A further rationale for the selection of Olympic Games is as follows: Canada and the United Kingdom, the hosting states of the Vancouver and London Olympics, have political and economic contexts similar to South Korea, the hosting country of the

PyeongChang Winter Olympics. Between the Vancouver 2010 Olympics and the PyeongChang 2018 Olympics, there have been three Olympic Games—London, Sochi, and Rio—for which the bid book on sustainability was officially applied. As highlighted in Chapter 3, the sports mega-event is a government-led event, and therefore the ideology and economic system of the host state are significant (Müller and Gaffney, 2018). Canada and the United Kingdom reflect the close similarity in their political and economic systems, each with full democracy and a market-led economy. It would be helpful to reflect on the features of sustainability for each of these Olympic Games to pursue their multidimensional aspects.

4.4.2 Document Analysis

The dictionary definition of 'document' includes a wide range of materials found in every sort of place. As one of the widely known means used to comprehend the meaning of social events and phenomena, document analysis has been a key data collection method used in social research (Bryman, 2015). Document analysis can be widely used in both qualitative and quantitative research as a useful data source describing the social phenomena in which the documents are written (Scott, 1990). May (2001) stated that the analysis of official documents is also useful for understanding the meaning of power relations in society. Hence, data collected from documentary analysis is a major source used to triangulate the interview method in order to fully understand the context of hosting and the sustainable legacy of the 2018 Winter Olympic Games.

In relation to document analysis, Grix (2019: 132) noted that researchers must consider three criteria in collecting documents as a data source: 1) the origins and authors of these documents or texts; 2) the purpose for which they were originally written and 3) the audience they were intended to address. In line with this perspective, Scott (1990) posited that there are four criteria for assessing the quality of a document: authenticity, credibility, representativeness, and meaning. The first criterion is authenticity: The documents should be checked to ensure that they are genuine and produced without any error in order to be considered a reliable source. Platt (1981:34) presented a checklist of six considerations to determine the authenticity of a document as a data source: 1) Does the document

contain obvious errors and/or inconsistencies?; 2) Do different versions of the same document exist?; 3) Is there consistency in the literary style, content, handwriting or typeface?; 4) Has the document been transcribed by more than one copy writer?; 5) Has the document been circulated by someone with a vested interest in a particular reading of its content? and (6) Was the version derived from a reliable source?. The authenticity of the documents as a data source might not be problematic in this research, as the documents used are from official sources. Credibility, the second criterion, 'refers to extent to which the evidence is undistorted and sincere, free form error and evasion' (Scott, 1990:7). There are further questions stemming from this criterion, i.e. who produced the document, why, when, or whom and in what context? May (2001) suggested that other data sources should be used as a form of triangulation in order to establish the social and political context in which the document was produced. To overcome this problem in this research, the data from the semi-structured interviews should enhance the understanding of the phenomena through a process of triangulation. The third criterion relates to representativeness, which is connected to the accessibility of the document. A possible solution suggested by Macdonald (2008) is that consideration should be given to the issue of whether the documents used in the research are a representative sample of the totality of the documents as they originally existed. The last of Scott's criterion is meaning. Meaning refers to 'the extent to which the evidence is clear and comprehensible to the researcher' (Scott, 1990: 8). It is crucial to look for the meaning of a document because the main goal is a full understanding of what a document means. There are two ways of understanding the meaning of a document: the surface meaning and the internal meaning. Macdonald (2008) argued that researchers must analyse the surface meaning of a document and then understand its context. As suggested by Scott (1990), raising questions about the internal meaning of the values and ideas contained in a document can be seen as an epistemological approach. He also argued that an interpretative understanding is the end-product of a hermeneutic process in which the researcher relates the literal meaning to the context in which a document was produced in order to assess the meaning of the text as a whole. In line with this perspective, researchers should consider the overall conditions and specific context in which the document was created.

The purpose of this study is to examine the discrepancies in the plan for the sustainable

legacy of the 2018 Winter Games in the bidding book and the actual realisation. Thus, collecting empirical evidence from the bidding stages, such as the policy and official documents related to the sustainability of the PyeongChang Winter Olympics and other Olympics provides a point of reference for understanding multiple views on the sustainable legacy policy making throughout the whole process of the Olympic Games.

4.4.3 Interviews

The interview is one of the most common methods of data collection in qualitative research. This research method aims to answer the questions of 'why' and 'how' rather than 'how many' and 'when' (Gratton and Jones, 2010). In political science, the interview is a persuasive research method used to collect empirical data. Vromen (2010:258) argued:

> Interviews conducted in-depth rather than through formal survey mechanisms tend to be exploratory and qualitative, concentrating on distinct features of situations and events, and upon beliefs and personal experiences of individuals.

Basically, there are three types of research interviews: structured interviews, semi-structured interviews and unstructured interviews. First, structured interviews, which are mainly used in quantitative research, limit flexibility to avoid ambiguity in the meaning of the answers provided by the interviewee (Bryman, 2015). This interview method employs an interview guide that has been thoroughly prepared by the researcher. This type of interview is useful when there is a large number of interviewees because it can be conducted by interviewers who have no knowledge and experience about the research topic. However, there are some drawbacks associated with structured interviews. Interviewees in structured interviews are forced to choose from a limited set of answers to pre-set questions. Thus, it is difficult to obtain different interpretations and ideas regarding the participants' thoughts (May, 2001).

In contrast to structured interviews, unstructured interviews do not involve any prepared questions or recognised order (Bryman, 2015). This interview method has the advantage of allowing the participants to progress naturally according to the specific circumstances

in which the interview is conducted and to talk more freely within their frame of reference (May, 2001). According to Fontana and Frey (2005), this interview method is aimed at understanding individual members of the public without imposing a priori categorisations that limit the field of inquiry. However, in order to conduct an unstructured interview, the researcher must have a thorough understanding of the research subject and must be skilled in interviewing techniques. It is essential to have a wealth of experience to be able to respond flexibly to unexpected situations that may arise during the interview process. Absent such experience, the unstructured interview could fail to provide the appropriate information, even if the interview is lengthy.

Unlike other interview methods, semi-structured interviews, which is an intermediate form between structured interviews and unstructured interviews, includes the major questions in an interview guide. The semi-structured interview is 'based on an interview guide, open-ended questions and informal probing to facilitate a discussion of issues' (Devine, 2002:198). Semi-structured interviews are less restrictive in the content and format of the interviewees' responses. Therefore, the interviewees can provide their knowledge and information in depth and present what they want to say throughout the interview (Bryman, 2015, May, 2001). More specifically, the researchers ask open-ended questions to enable the participants to organise their own experiences. It is also important in such interviews for the researchers to be allowed to rearrange the order of the questions and to ask follow-up questions when they do not fully understand a response to gain more information (Fielding and Thomas, 2008). Berg (2004:107) also argued that the questions in semi-structured interviews 'are typically asked of each interviewee in a systematic and consistent order, but the interviewers are allowed freedom to digress [and] probe far beyond the answers to their prepared and standardized questions'. Additionally, these interviews make it easier to gather information on context as well as processes (May, 2001). Therefore, in this research, the semi-structured interview was selected because it is useful for gaining insights into the decision-making process related to the PyeongChang 2018 Winter Games from an epistemological perspective. It also helps provide an understanding and explanation of both the structure and agency aspects of the decision-making process regarding a sustainable legacy for the 2018 Winter Olympics, as the interviews allow information to be collected on the context as well as the process

(May, 2001). Therefore, the semi-structured interview method is adopted for this study. As regards semi-structured interviews, it is essential to be aware of a number of variables which will affect the outcome, such as who should be interviewed, where the interview takes place, and the form of the questions (Byrne, 2004). In line with this perspective, the remainder of this section outlines the fundamental considerations involved in semi-structured interviews.

There are a wide range of issues and potential problems that may be involved when using interview methods to obtain research data. The first issue is sampling, which is the criteria for the selection of the interviewees. The method used to collect the data is of paramount importance as this research is conducted to explain how the sustainability debate regarding the PyeongChang Olympics was conducted. The selection of the appropriate interviewees is essential, not only to ensure the validity of this study, but to ensure that the most appropriate and rich data are available for the research. As Bryman (2015) argued, in qualitative research, a lack of transparency is often found in the sampling techniques for the selection of the interviewees. Denscombe (2014) argued that semi-structured interviews require a high level of prudence and less randomness in the selection of subjects relative to structured interviews, which are like questionnaires. To overcome this issue, there has been a growing discussion in political science on the collection of data using the interview method from individuals in high positions who hold key positions or are key stakeholders over a period of time, also known as ‘elites’ (Vromen, 2010). Therefore, I adopted purposive and snowball sampling techniques for this study. Purposive sampling, also known as selective sampling, is useful to gather information about ‘why particular people feel particular ways, [and] the processes by which these attitudes are constructed’ (Given, 2008:697). More specifically, I adopted stakeholder sampling among several purposive sampling techniques. This sampling is the most appropriate interview technique to collect data from stakeholders who have been or were involved in designing, giving, receiving, or administering in the context of policy analysis (Given, 2008). Given the importance of this research sampling technique, I attempted to interview stakeholders who were deeply involved in the PyeongChang Winter Games since the preparation of the bid book. With regard to the issue of reliability, the interviewees must fulfil one or more of the following criteria : 1) have been or were

involved in the bidding committee to host the 2018 Winter Olympics; 2) have been or were involved in the PyeongChang Organising Committee for the 2018 Olympic & Paralympic Winter Games (POCOG); 3) in a senior position within the relevant local or governing bodies; 4) in a position of the strategic overview of an organisation which was involved in the bid process over the long term and 5) sports policy expert who could provide insights related to the sustainable legacy. In total, ten interviews was undertaken for this study (see Appendix 1.):

- five interviews with senior personnel from governmental organisations that were responsible for the 2018 PyeongChang 2018 Winter Olympic Games (e.g. President & CEO, Executive officer or Executive board),
- four interviews with senior personnel from local bodies that were responsible for the 2018 PyeongChang 2018 Winter Olympic Games,
- one interview with a sports policy expert.

All the respondents were guaranteed anonymity and explicit permission was obtained indicating how I intend to collect and analyse the data by talking to the interviewees before and after collecting the data (Grix, 2019). They also had the option to veto any part of the response that they do not want to be included through clear mutual consent.

4.4.4 Data Management and Coding

In this study, two types of empirical data were collected: 1) document material, such as government and official documents published by the IOC and government; 2) in-depth interviews. In order to enhance the reliability and validity of the research, the document data were collected according to the following criteria. The first is through government documents published by the governments of hosting states, including documents published at the central and local level. The second is through official documents from the IOC and the Organising Committee for the Olympic Games of each hosting state. All documents were converted to PDF format and imported by NVivo 12 for analysis. In addition, the documents used in this study were used to triangulate data with other data (e.g. in-depth interviews). The initial data from these documents were also helpful for

feeding into and designing basic interview questions (see Appendix 2). In this sense, document analysis is not adopted as an independent tool, but in the process of 'back-and forth interplay with the data' (Bowen, 2009, 37). The second type of data is from semi-structured interviews. Since this was a primary method of data collection for this study, it was very important to establish rapport with interviewees because all interviewees in this study have been or were involved directly related to the hosting of the PyeongChang Olympics and the planning and implementation of the Olympic legacy. To build rapport with interviewees for a rich set of data, the researcher put the most effort into the selection of the interviewees and contacted them for over a year before the interviews. The data obtained through the interviews were analysed through content analysis techniques. In this study, thematic analysis, the most common technique among content analysis techniques, was adopted. This is an analysis that finds, analyses, and reports patterns of collected data, which not only provide new insights, but also improves researchers' understanding of specific social phenomena or actual actions (Braun and Clarke, 2006).

All data analysis processes in this study have been managed and adopted by the NVivo 12 Program. NVivo is software that supports qualitative research and is designed to construct and analyse structured or qualitative data, such as interviews and documents (Bazeley and Jackson, 2013). Basically, the NVivo performs two functions. The first supports systematic archiving of data found in interviews and documentation. It also supports subject classification by creating initial codes for the data. As Braun and Clarke (2006, 87) argued, the coding process for thematic analysis is divided into a total of six stages: 1) familiarising yourself with your data; 2) generating initial codes; 3) searching for themes; 4) reviewing themes; 5) defining and naming themes; and 6) producing the report. The first step was to become familiar with the data that had been transferred.

All interview data obtained through the interview were uploaded to NVivo 12, a qualitative research coding program. During the interview, all interview conversations were recorded with the consent of the interviewees. This was not only a means of increasing the accuracy of the research, but also a way to conduct interviews in a way that was desirable. All recoded interview data were transcribed by the researcher to increase familiarity with the data rather than using an automatic transcription program. The second

step was to generate the initial code for the study. Boyatzis (1998, 63) referred to 'the most basic segment, or element, of the raw data or information that can be accessed in a meaningful way regarding the phenomenon.' Accordingly, all data received equal and balanced attention in order to avoid bias from researchers. As the third step of the coding process, a long list of codes that could be potential topics were initially collected. The key point of this process was to examine as many codes as possible. This step also involved classifying all codes as potential themes and comparing all relevant codes within the identified themes. Then, as the fourth step of coding, all the codes were collected and the theme was defined through a consistent pattern. At this stage, the data within the themes had to be interconnected meaningfully, while care was taken to ensure clear and identifiable distinctions between the themes. These topics were largely classified into three main categories – economic, social and environmental legacy – based on the framework of this study, the triple bottom line. In addition, governance was classified as a theme that could leave a sustainable legacy by collecting codes that appeared repeatedly in interview data.

4.5 Reliability and Validity

In the social sciences, the concepts of reliability and validity are recognised as important requirements that must be considered in the data collection and analysis processes in order to establish and provide high quality research. In quantitative research supported by the positivist approach, reliability and validity have been recognised as prerequisites for verifying the scientific objectivity of the research. Unlike quantitative research, which is supported by the positivist approach, in qualitative research, the standards for reliability and validity are less strict. As qualitative research has a different epistemological or philosophical background from quantitative research, there has been discussion among qualitative researchers of contradictory views on the need for reliability and validity in qualitative research. There are two main points of view on the reliability and validity of qualitative research. The first is that standards for reliability and validity are unnecessary in qualitative research (Smith, 1989). From this perspective, they argue that there are no special procedures or methods that would enable a universal interpretation by researchers in social research. In other words, it is desirable to use research methods or external

methodological criteria that prevent the researchers' bias from influencing the conclusions (Smith, 1989). The second is that the trustworthiness of the research is important in evaluating the worth of qualitative research. As the concept of trustworthiness is equivalent to the notions of validity and reliability applied in quantitative research, Guba and Lincoln (1985) proposed that it is necessary to establish trustworthiness in qualitative research through the use of specific analytical procedures and objective criteria, advocating a traditional social science inquiry using the concepts of validity and reliability. With this suggestion in mind, the reminder of this section explores the standards of reliability and validity to which this research adheres.

4.5.1 Reliability of Data

Broadly speaking, reliability refers to exact replicability in the process and results of the research, i.e. whether the same research results could be drawn if the study was repeated (May, 2001). In qualitative research, however, it is complicated to accurately measure the reliability of research in the social sciences, which analyse social phenomena. As Marshall and Rossman (2006) emphasised, in qualitative research, it is impossible to replicate the research results and processes to an equal extent because social research is carried out in a natural state with no intentional manipulation of the participants and the participants' situation, which are selected through purposive sampling. Due to the nature of qualitative research, there is a negative view of its reliability. Stenbacka (2001) stated that 'the concept of reliability is even misleading in qualitative research. If a qualitative study is discussed with reliability as a criterion, the consequence is rather that [the] study is no good'. However, the concept of reliability applied to quantitative research is still a major concern of qualitative researchers. Many scholars have argued that the concept of reliability is appropriate for qualitative research. Guba and Lincoln (1985) proposed the concept of reliability as dependability, i.e. that the research results are consistent and could be repeated. Merriam (1998) also pointed out that the concept of reliability in qualitative research is a matter of finding consistent research results with the same collected data rather than research results that are consistent over time.

LeCompte and Goetz (1982) stated that reliability is made up of two criteria: internal and external reliability. In research in which there is more than one observer, internal

reliability refers to the degree to which the research team agrees about what they see and hear. In contrast, external reliability refers to the degree to which the entire study can be replicated. Unlike conventional natural science, which can be repeatedly measured, it is almost impossible to observe the behaviour of the same participants and duplicate the social context and circumstances of the initial study.

4.5.2 Validity of Constructs

Broadly speaking, validity in quantitative research refers to whether the test tool actually specified what it tried to measure. In qualitative research, validity has been discussed by multiple scholars from various perspectives. Creswell (2007) summarised these perspectives on the validity of qualitative research as follows in Table 4.1.

Table 4 1 Perspective and Terms Used in Qualitative Validation

Study	Perspective	Terms
LeCompte and Goetz (1982)	Use of parallel, qualitative equivalents to their quantitative counterparts in experimental and survey research	Internal validity External validity Reliability Objectivity
Guba and Lincoln (1985)	Use of alternative terms that apply more to naturalistic axioms	Credibility Transferability Dependability Confirmability

(Source: Creswell, 2007:203)

With regard to the major terms and concepts, LeCompte and Goetz (1982) applied the concepts of validity and reliability used in quantitative research, such as experimental research and surveys, to qualitative research. They discussed the importance of factors that impede validity and reliability in qualitative research. As in quantitative research, there are factors that could reduce validity and reliability in qualitative research. They also argued that there is a need for a research strategy to improve validity and reliability

in qualitative research. Guba and Lincoln (1985) proposed the concept of credibility as a term corresponding to the concept of validity in quantitative research. They also pointed out that in quantitative research, internal validity is equivalent to credibility, which refers to confidence in the truth of the findings. In line with this perspective, they posited transferability as a counterpart to the concept of external validity in quantitative research, which is defined as 'the degree to which a study can be replicated' (Bryman, 2015: 390). This term indicates that the research results are applicable in other contexts.

Notwithstanding the importance of validity in both quantitative and qualitative research, the concept of validity in quantitative research is different from validity in qualitative research. Validity can be understood differently depending on the purpose of the research itself, the theoretical background, the epistemological background, and the researchers' and participants' perspectives. From these various perspectives on the validity of qualitative research, Creswell (2007) posited the following. First, the validity of qualitative research means the degree to which the researchers and the participants try to understand how accurate the findings are. Second, as the qualitative researcher can spend relatively more time in the research field and can become well acquainted with the participants, it is possible to obtain more accurate results and more detailed descriptions. Lastly, a number of different stances have been taken by qualitative researchers, and they have proposed terminology and strategies to improve validity in their own contexts.

In this study, triangulation is applied as a main strategy to enhance the reliability and validity of the research. The method of triangulation, which is an appropriate measure in qualitative research to enhance its validity, compares multiple research methods and data sources to corroborate complementary aspects of a social phenomenon (Denzin, 1970, Silverman, 2015). This research method is also adopted to improve the reliability of this research by excluding bias or excessive subjectivity. Furthermore, the reliability of qualitative research could be enhanced by providing sufficient information on the premise of the research, the application of theory, the explanations of the participants, and the social context of the data found in the research (Merriam, 1998).

4.6 Conclusion

This chapter explains the research strategy of the study and the research methods based on ontological and epistemological assumptions. In the social sciences, it is important to choose appropriate research methods based on correct ontological and epistemological perspectives. This study is firmly rooted in the interpretivist position. The adoption of an interpretive epistemology is imperative to understand social phenomena in the context of hosting sports mega-events. The specific methods used to collect the data are semi-structure interviews and document analysis. Multiple case studies are employed as a triangulation technique to enhance the reliability and validation of this study. There are three cases: the 2010 Vancouver Winter Olympic Games, the 2012 London Summer Olympic Games and the 2018 PyeongChang Winter Olympic Games. In the following chapter, I will present an empirical analysis of the 2010 Vancouver Winter Olympics and 2012 London Summer Olympics in the context of sustainability.

CHAPTER 5 Sustainability of the Vancouver and London Olympics

The purpose of this chapter is to offer an insight into Vancouver and London's Olympic governance, their legacy vision and their strategy to deliver a sustainable Olympic legacy through hosting the Olympics. As the interest in sustainability has increased exponentially, the IOC established sustainable development as the third pillar of the Olympic Movement alongside sport and culture. In the context of sustainability, the Vancouver 2010 Olympics and the London 2012 Olympics were the first official Winter and Summer Olympic Games respectively, which published an Olympic Games Impact study (OGI) obligatorily. In order to implement the sustainable Olympic legacy plan, a variety of institutional actors were authorised to deal with the Olympics, including governmental and non-governmental agencies. The rationale for examining Olympic governance of previous Olympics is that it is an effective way to review the sustainable Olympic legacy from a more detailed and diverse perspective. I chose the Olympic Games as part of my case study because Vancouver and London's successful hosting of the Olympics received a good evaluation from the public after the Games were closed. According to a survey conducted after the end of the Olympics, 81 percent of adults in British Columbia (B.C.), which was the host venue of the 2010 Vancouver Olympics, rated the Vancouver Games a success (IOC, 2011). A survey after the London Olympics found that 79 percent of British men and 77 percent of British women thought that the Olympics were well worth the cost (IOC, 2013b).

This chapter analyses the governance system for a sustainable Olympic legacy in both cities through their Olympic legacy process from the bidding process after the Olympics. Moreover, this chapter examines the Olympic vision and legacy strategy and explore the sustainability strategies that were used in Vancouver and London to deliver the Olympic legacy, from the bid phase to the post-Games phase through an analysis of original, official documents.

5.1 A Brief Overview of the Vancouver and London Olympic Games

The Vancouver 2010 Winter Olympic Games were the 21st Winter Olympics held in Vancouver and Whistler, British Columbia, Canada, from 12 February to 28 February in 2010. The Vancouver Winter Games was the third Olympics hosted by Canada, following the 1976 Summer Olympics in Montreal, Quebec and 1988 Winter Olympics in Calgary, Alberta. The Canadian Olympic Association (COA) selected Vancouver as its candidate city for the 2010 Winter Games from three candidate cities: Vancouver, Calgary and Quebec (re-challenge after failing to host the 2002 Winter Olympics). The first round of elections was held on November 21, 1998, with Vancouver Whistler winning 26 votes, Quebec with 25 and Calgary with 21. On December 3, 1998, the final election was held and the top two cities with the most votes among the three were nominated. As a result, Vancouver won 40 votes and Quebec won 32 votes, making Vancouver a candidate city for the Winter Olympics. Vancouver was chosen as the host city for 2010 Winter Olympics at the 115th IOC Session in Prague, Czech Republic, on 2 July 2003. The finalists chosen by the IOC were Vancouver, PyeongChang, Salzburg and Bern, but Bern voluntarily gave up after a majority of Bern citizens rejected it in a referendum in Switzerland. PyeongChang in South Korea received the most votes in the first round, but it did not receive more than a majority, and Salzburg, which received the fewest votes, was eliminated. In the run-off vote, Vancouver won the bid to host the Winter Olympics, winning 56 votes, beating PyeongChang, which received 53 votes, two more than the first round (51 votes).

The London 2012 Summer Olympic Games were the 30th Summer Games from 27 July to 12 August in 2012. London was the first city to hold the Olympics three times in modern Olympic history, following the 1908 and 1948 Olympic Games. In 2003, London engaged in the race for hosting the 2012 Summer Olympics with other cites: Madrid, Paris, New York, Istanbul, Havana, Moscow, Leipzig and Rio de Janeiro. As a result of the bidding process, four cities were promoted to candidate status, London, Madrid, Moscow and Paris, based on the IOC's technical evaluation report in 2004. The IOC voted to select the host city of the 2012 Summer Olympics on 6 July 2005 at the 117th IOC Session in Singapore, voting for London 54–50.

5.2 Olympic Legacy Governance

In the Olympic governance system, the Organising Committee for the Olympic Games (OCOG) is a key organisation responsible for overseeing the planning and development of the Olympic Games. The IOC entrusts the right to host the Olympics to the National Olympic Committee (NOC) of the host country after being confirmed as a host city. Although the NOC can run the Olympic Games independently, in most cases it is normal to create a separate OCOG. Usually, the OCOG works alongside the IOC, NOCs and the International Federations (IF) as well as local stakeholders in order to deliver and host the Olympics. The OCOG has organisational characteristics that have a far-reaching impact on the preparation and operation of the Games. In particular, the importance of the role and function of the OCOG under governance has been highlighted, as the recent Olympics has demonstrated the large-scale physical urban planning characteristics of constructing an infrastructure for the Olympics, as well as the overall national projects for managing finance, tourism, security, urban regeneration, and social conflict. Chappelet (2016) stated that the role of the OCOG has changed to meet the demands of the times. He also argued that the OCOG had to cooperate with other organisations, which are responsible for specific tasks (transport, security, construction of sport facilities). As Girginov (2012; 545) remarked, implementation of the Olympic legacy vision 'provides a new policy space where old and new actors interact in order to negotiate the meaning of legacy and how particular visions of it are to be achieved'. In order to deliver a sustainable Olympic legacy, the OCOGs build specific Olympic governance with myriad partners and local stakeholders including the central and provincial government. This section analyses the Olympic governance systems to create a sustainable legacy in both Olympic cities and how the agencies for sustainable legacy interact to develop a sustainable legacy through the Games.

5.2.1 Vancouver Olympic Legacy Governance

The 2010 Bid Committee was established in 1999 to win the bid to host the 2010 Winter Olympic Games. Vancouver's bid emphasised that the 2010 Winter Olympics would leave an emotional legacy for Canada and a sustainable legacy for the community

(Furlong, 2011). To realise the legacy vision, the 2010LN, an organisation for sustainable legacy was established. The 2010LN was a key private sector-led organisation based on entrepreneurship to create a sustainable Olympic legacy. In 2010LN, which was established in 2000 as a local not-for-profit social organisation, the board was comprised of nine members, who had the ultimate responsibility of managing 2010LN. Initial board members of the 2010LN included those who were involved in the bidding phase, but the Canadian government was not involved in the selection of the board members, including the chairman, to ensure complete independence (Weiler and Mohan, 2010b).

After being selected as the host city, the VANOC was established in 2003 through a Host City Contract with the Canadian Olympic Committee. The 2010 Games Operating Trust (GOT) was established as a source of funding and a total amount of CAD $110 million was raised by contributions from federal and provincial government and grew to CAD $133.6 million in 2007 (Canadian Heritage, 2007). The GOT was responsible for operating and maintaining three Olympic facilities from pre-Games to post-Games (the Richmond Oval, the Whistler Sliding Centre and the Whistler Nordic Competition Venue), and for supporting the development of high performance amateur sport in Canada (Leopkey and Parent, 2017). Separately, the municipal government of Whistler set up a not-for-profit organisation called Whistler Sport Legacies (WSL). The WSL was responsible for the operation and management of sport facilities in Whistler: Whistler Sliding Centre, Whistler Olympic Park and the Whistler Athletes' Centre. It also encouraged the local community to have an active life through sport.

In order to deliver a sustainable legacy after the Vancouver Winter Games, the 2010LN needed a more extended role as a new business model. In preparing for a new business model to develop a sustainable Olympic legacy, the 2010LN launched the LIFT Philanthropy Partners (LIFT), which is an organisation that supports not-for-profit organisations in Canada. The brand new organisation established in 2011 encourages not-for-profit organisations to continue having an effective social impact through the venture philanthropy approach in order to create measurable social change on a national scale. In addition, the LIFT narrowly focused the organisations, which are related to: 1) sport and healthy living and 2) literacy and lifelong learning (Weiler, 2011). Its main task is to

provide support such as strategic funding, business expertise and practical management support to help those non-profit organisations function effectively (LIFT, 2015).

As Weiler and Mohan (2010b) stated, cooperation between the 2010LN and VANOC built a relationship on mutual trust. The 2010LN was derived from a programme (LegaciesNow – Sport Program) of the Vancouver–Whistler Bid Committee, which was the predecessor of the VANOC. Given that VANOC recognised the 2010LN as an essential link to approach the local community, the trusting working relationship between the two organisations continued after VANOC was established. The 2010LN was not an official partner of VANOC. However, the 2010LN performed the role of a partner to VANOC to deliver sustainable Olympic legacy in the province.

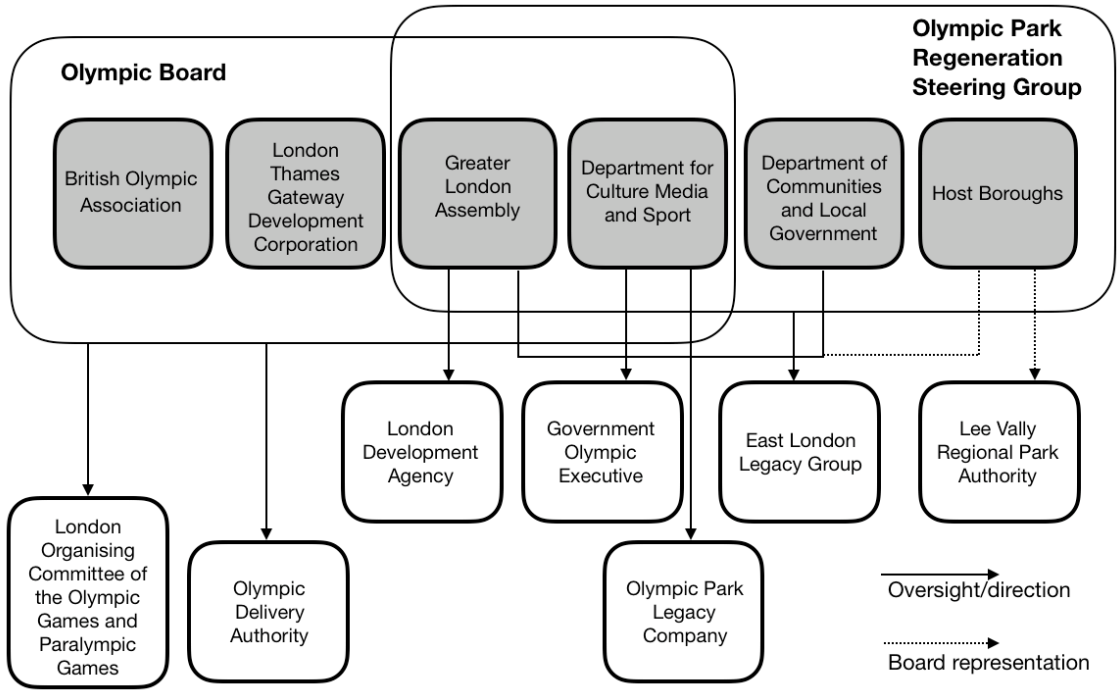
As such, the governance of the Vancouver Olympics prepared the Olympic legacy in a different way than the previous Olympics. In the Vancouver Olympics, the Olympic legacy was planned to benefit the local community and Canada from the stage of bidding preparation, regardless of whether or not Vancouver won the bid. This is a strategic approach adopted by the Vancouver Olympics to deliver an effective Olympic legacy, which shows that the private sector organisation has been led from the bid phase to the post-Games period.

5.2.2 London Olympic Legacy Governance

After winning the right to host the 2012 Summer Olympics, the UK government established various organisations to host the London Games and deliver the sustainable legacy of the Games. The key organisations of governance for the sustainable Olympic legacy were the Department for Culture, Media and Sport (DCMS), which represents the UK government, and the Greater London Assembly (GLA), which represents the host city where the 2012 Summer Olympics was held. In addition, there were two main decision-making bodies, led by the DCMS and GLA. The first decision-making body was the Olympic Board. The Olympic Board was the public-voluntary-private body, which was responsible for ultimate decision-making strategy on Olympic planning and development. The Olympic Board was composed of two public bodies; the UK

government's DCMS and the GLA, a voluntary organisation; the British Olympic Association (BOA), and the London Thames Gateway Development Corporation. The second decision-making body was the Olympic Park Regeneration Steering Group (OPRSG). The OPRSG was established in order to oversee the regeneration in East London based on the Legacy Masterplan Framework, which aimed to 'transform the Olympic Park into a prosperous and sustainable community for East London and to be a successful catalyst for investment and development opportunities' (DCLG, 2015, 18). The OPRSG consisted of four public organisations; DCMS, GLA, Department of Communities and Local Government (DCLG), and the Host Boroughs. The overview of the London Olympic governance is illustrated below in Figure 5.1.

Figure 5 1 The Overview of the London Olympic Governance



(Source: DCLG, 2015:12)

The LOCOG, which was an organisation that has the nature of a temporary limited company, was established to plan, prepare and stage the Games successfully and to handle almost all Olympic matters, except for the construction of infrastructure and facilities. In terms of the construction activity, the Olympic Delivery Authority (ODA) was a public organisation responsible for the infrastructural legacy of London Games, sports venues,

facilities and transport. Its mission was to build and deliver the infrastructure legacy on time without a supplementary budget (DEFRA, 2013). The London Development Agency (LDA) was a functional body of the GLA that was responsible for purchasing the Olympic park and assembling the land. The LDA was abolished in 2012, but Olympic-related work has been forwarded to the Olympic Park Legacy Company. The Olympic Park Legacy Company (OPLC), as a not-for-profit partnership between the UK government (the Olympic Minister and DCLG) and the GLA, was established to manage, operate and develop the Olympic facilities for continued use and to provide a long-term legacy plan after closing the Games. The OPLC was replaced by the London Legacy Development Corporation (LLDC) as a Mayoral Development Corporation in 2012.

Meanwhile, with regard to the regeneration of East London through the Olympics, which was commonly set as a legacy target at the UK government and London, the Host Boroughs Joint Committee was established to strengthen urban regeneration efforts for the local people, communities and businesses through a strategic regeneration framework in six boroughs; Greenwich, Hackney, Newham, Tower Hamlets, Waltham, Barking and Dagenham. In addition, the London Employment and Skills Task Force (LEST), established under the initiative of the Mayer of London, was a public-private partnership to maximise the increase in employment and labor productivity (Girginov, 2012).

Regulatory bodies were also established to regulate the creation and implementation of a legacy after the Olympic Games in London. The Government Olympic Executive (GOE) was a unit within the DCMS that, on behalf of the British government, was responsible for overseeing the operation of the London Olympics and ensuring the creation and implementation of a sustainable legacy on time (DCMS, 2011). In addition, the Sport Legacy Delivery Board (SLDB) was established in connection with regulations on the creation and implementation of an Olympic legacy. It consisted of representatives from 17 public and voluntary organisations, including eight government ministries and related agencies. Meanwhile, the Commission for Sustainable London 2012 (CSL) was established to provide assurance sustainability of the London 2012 Olympic programme. As an independent body, the CSL was responsible for monitoring and reporting to the Olympic Board that the Olympic bodies (i.e., ODA, LOCOG, OPLC, GLA and GOE)

performed their tasks in accordance with the principles of sustainability in planning and delivering their activities. The CSL was meaningful as the first Olympic organisation to be a fully-fledged sustainability assurance model with their assurance framework (Synnott and Wilson, 2013).

Additionally, in order to deliver a sustainable Olympic legacy after the London Olympics, there was also intervention by the UK government at a national level. The Public Service Agreement (PSA), a framework under which the British governmental departments present aims and objectives for a three-year period, was announced to create a sustainable legacy of the London Olympics and to motivate children and young people to participate in high quality PE and sport. The PSA 22 consists of five priorities: 1) building Olympic Parks and Olympics facilities; 2) maximising urban regeneration effects; 3) designing Olympic Parks and facilities in accordance with sustainability principles; 4) expanding public participation in cultural, regional social and sports activities and 5) developing world-class PE and sport (HM Government, 2007).

In the London Olympics, It is clear that effective Olympic governance was established to deliver a sustainable legacy. The governance of London Olympics planned to leave a sustainable Olympic legacy through effective communication and cooperation from various stakeholders. In addition, horizontal governance of London Olympics, in collaboration with the public and private sectors, is a good example of greatly improving sustainability.

5.3 Olympic Legacy Vision and Strategy for Sustainability

Hosting the Olympics requires a strategic approach and firm vision to create a sustainable Olympic legacy. The legacy strategy and vision are also encouraged by the IOC as stated below:

> Olympic legacy is the result of a vision. It encompasses all the tangible and intangible long-term benefits initiated or accelerated by the hosting of the Olympic Games/sport events for people cities/territories and the Olympic Movement (IOC, 2017).

There is no doubt that the Olympic legacy vision and strategy, set up in the bid phase as a candidate city play a pivotal role in leaving an Olympic legacy in terms of sustainability. In the process of developing a sustainable Olympic legacy, Olympic legacy visions and strategies are modified and developed further according to external factors such as economic and political situations. This section analyses the Olympic vision and strategy in both Olympic cities and how the Olympic vision developed over time.

5.3.1 Olympic Legacy Strategy for Sustainability in Vancouver

The most noticeable characteristic of the Vancouver Winter Olympics was that British Columbia, as a potential host region, took a proactive approach to planning, conceptualising and developing a sustainable legacy from the stage that Vancouver was one of the candidate cities for the Canadian bid for the 2010 Winter Games (Leopkey and Parent, 2017). It is clear that the importance of a sustainable legacy of the Olympic Games has been emphasised since the latter half of the 20th century. While the Lillehammer Winter Olympics was the first Olympics that was officially concerned with environmental issues, the Vancouver Winter Games were the first Olympics that officially expressed attention to sustainability, which included the economic and social aspects as well as the environmental aspect (Holden et al., 2008). In this regard, the Vancouver 2010 Winter Olympics was the world's first sustainable Olympics that officially adopted the sustainability framework, from the bidding stage, which measures performance on three criteria: economic benefit, social responsibility and environmental sustainability. Moreover, it was also the first Olympics that published a sustainability report for the first time in Olympic history. The VANOC highlighted the bold vision for sustainability around six agenda: 1) accountability; 2) environmental stewardship and impact reduction; 3) social inclusion and responsibility; 4) aboriginal participation and collaboration; 5) economic benefits and 6) sport for sustainable living as arranged on Table 5.1 (VANOC, 2010b).

Despite Canada being one of the leading nations in winter sports, with its culture and tradition, the failure of the 1976 Montreal Olympics has made it difficult to re-host the Olympic Games. Therefore, it was important that the bidding process for the Vancouver

Winter Olympics was supported by the bid regions in Canada before competing with other potential cities for the 2010 Winter Olympics bid. Prior to applying for the Olympic bid, the province of British Columbia, where Vancouver and Whistler are located, presented a Olympic legacy vision that it can benefit the bid area in the future, not just during the Games. In line with this perspective, they proposed a legacy programme: '2010 Legacies Now' (2010 LN). The 2010LN was a non-profit organisation that leveraged the 2010 Winter Olympics in order to create more realistic and tangible Olympic legacies for the community in the host region (B.C.). The 2010LN, established in June 2001, aimed at strengthening sports systems for athletes and sports organisations in B.C. as well as the rest of Canada in the long term regardless of the result of the bid for hosting the 2010 Olympics (Weiler and Mohan, 2010b). This was the first case in Olympic history where the legacy conceptualisation was attempted regardless of whether the Olympic bid was successful (VANOC, 2010a).

The Olympic legacy at the Vancouver Winter Olympics, planned and created by the 2010LN, focused on the development of domestic sports and culture so that its sports policy-makers can now benefit from the legacy project, rather than setting a legacy policy that follows the trend of international sports, taking into account the regional characteristics of the host areas and Canada, where a cultural and market demand for winter sports has been secured. The 2010LN focused on three areas: 1) sport development, 2) community capacity building and 3) a province-wide community outreach programme (Weiler and Mohan, 2010b). Based on the importance of demonstrating that the entire B.C. province would benefiting from the bid, and that all B.C. residents were supporting the bid, 2010LN visited many local B.C. communities to discuss how hosting the competition would benefit the province as a whole. This approach was an occasion for the 2010LN to gain a positive reputation for approaching from the sport for all perspective and for residents to recognise the identity of the organisation. This discussion gave rise to the perception that hosting the Olympics could have a positive impact on the entire province of B.C. In line with this perspective, the 2010LN aimed to: 1) assist athletes from B.C. to compete in the Olympic Games; 2) provide incentives for B.C. community sports outreach programmes; 3) increase the capacity building and sustainability of sport and 4) increase advanced positive awareness on the impact of hosting the Winter

Olympics (Weiler and Mohan, 2010b). The goals were grounded on the fact that it is essential for the potential host city to draw support from the community by informing them that hosting the Olympics would benefit the local community. The 2010LN's approach, which focused on the local community, had impressed upon the residents that hosting the Olympics could have a positive impact on entire B.C. province. It played an important factor in drawing strong support from the community for the Olympic bid.

Table 5 1 VANOC's Sustainability Performance Objectives and Contents

Sustainability performance objectives	Contents
Accountability	- To behave ethically, set measurable performance targets and communicate openly about our progress and challenges - To consult with external groups affected by our activities
Environmental Stewardship and Impact reduction	- To conserve natural environments and manage, mitigate and offset negative impacts
Social Inclusion and Responsibility	- To convene accessible Games that have a positive impact on socially and economically disadvantaged groups that otherwise would not benefit - To care for our workforce, protect human rights and ensure health and safety
Aboriginal Participation and Collaboration	- To partner with the Four Host First Nations to achieve an unprecedented level of Aboriginal participation in the Games
Economic Benefits	- To demonstrate that sustainable innovation and practice makes good business sense
Sport for Sustainable Living	- To use sport, and growing athlete and public interest in living more sustainably, to inspire

	action on local and global sustainability challenges

(Source:VANOC, 2010b)

5.3.2 Olympic Legacy Strategy for Sustainability in London

The view of the UK government and London's Olympic legacy could be found in a speech by David Cameron, the former British Prime Minister, just a day before the London Olympics.

> … I want to set out three things you're going to see over the coming weeks. …. Number one: you're going to see beyond doubt that Britain can deliver. We've delivered this incredible Olympic Park on time, on budget and in real style. …. The second thing you're going to see here is a real sense of community. We always said the success of these Games wasn't just about what Government does or what business does - it's about our people and the welcome they give to the world. …. The third - and most important - thing you're going to see and feel over these coming weeks is that infectious spirit of the Olympic and Paralympic Games. Beyond all the grand ceremonies and great displays, we've got to remember what this is all about (Cameron, 26 July 2012:online).

The key reason to host the London 2012 Olympic Games was that the UK government proposed Olympic visions for a long lasting legacy. Girginov and Hills (2009) stated that the London Olympic bid was built on the promise to create a wide range of sustainable legacies regarding economic and social issues. London's legacy vision for the 2012 Olympics focused on the regeneration of East London and changing British people's lives through sports. In London's legacy vision, the Olympic legacy was considered to be a forward-looking and prospective concept planned from the Olympic bid and preparation periods, to be developed even after the closing of the Games. According to Girginov (2012:544), the UK government's stance on the Olympic legacy indicated that 'the construction of the Olympic legacy represents a developmental project which holds both a promise to accomplish something that does not exist and the uncertainty of how this future state is going to be delivered'.

In the bid phase, London's legacy vision emphasised delivering a sustainable Olympic legacy after hosting the Games. They presented five main themes their bid book: 1) delivering the experience of a lifetime for athletes; 2) leaving a legacy for sport in Britain;

3) benefiting the community through regeneration; 4) supporting the IOC and the Olympic movement and 5) compact, iconic and well-connected venues (London 2012 Ltd, 2004). The UK government established the London Organising Committee for the Olympic and Paralympic Games (LOCOG) in July 2005, shortly after they won the right to host the Games. The LOCOG pledged to host 'inspirational, safe and inclusive Games and leave a sustainable legacy for London and the UK' (ODA, 2007:2). The details of the Olympic legacy vision are: 1) to deliver the Olympic Park and all venues on time, within agreed budget and to specification, minimising the call on public funds and providing for sustainable legacy; 2) to stage an inspirational Olympic and Paralympic Games for the Athletes, the Olympic family and the viewing public; 3) maximising the economic, social, health and environmental benefits of the Games for the UK, particularly in East London and 4) to achieve a sustained improvement in UK sport before, during and after the Games, in both elite performance — particularly in Olympic and Paralympic sports — and grassroots participation. (DCMS, 2008c, 8-10).

Released in June 2007, the Legacy Promise 2012 was more specific and clear than the previous Olympic Legacy Vision. As illustrated in Table 5.2 below, the Legacy Promise 2012, consisting of five promises, evolved into a detailed Legacy Action Plan. The Legacy Action Plan served as the basis for the UK government to establish strategies for evaluating the performance results of London Olympic legacy. London also presented their legacy vision as the host city of the Olympics. London announced five legacy commitments for its various legacy visions, including: 1) increasing opportunities for London citizens to participate in sport; 2) ensuring participation by Londoners in employment, business and volunteer opportunities created by hosting the Olympics; 3) development of East London; 4) delivering a sustainable Olympic Games and 5) promotion of the city as a diverse, inclusive, creative and welcoming city (GLA, 2008). In addition, the UK government set out the new Olympic Legacy Plan published by the DCMS in 2010. The legacy plan focused on four areas: 1) increasing the passion to participate in grassroots sport among young people and promoting awareness on physical activity to the whole nation; 2) generating opportunities for economic growth through hosting Olympics; 3) promoting community engagement and activities in the community through the Olympics and 4) regeneration in East London (DCMS, 2010). It also

classified major programmes for implementing the Legacy Plan into local and central government levels.

Table 5 2 Legacy Promise 2012 for London Olympics

Legacy Promise	Headline Ambitions
Make the UK a world-leading sporting nation	- Inspiring young people through sport - Getting people more active - Elite Achievement
Transform the heart of East London	- Transforming place - Transforming communities - Transforming prospects
Inspire a generation of young people	- Giving time and expanding horizons - New cultural activities - Engaging and learning - Going global
Make the Olympic Park a blueprint for sustainable living	- A model of sustainable development - Inspiring sustainable living
Demonstrate the UK is a creative, inclusive and welcoming place to live in, visit and for business	- Improving business - More jobs, improved skills - Making the UK more welcoming

(Source: DCMS, 2008b)

5.4 Actual Outcomes of Sustainability at the Vancouver and London Olympics

The following section provides a description of the actual outcomes of sustainability at the Vancouver and London Olympics. It also provides an analysis of those factors which have improved the sustainability of each Olympic Games.

5.4.1 Actual Outcomes of the Vancouver 2010 Winter Olympics

5.4.1.1 Economic Legacy from the Vancouver 2010 Winter Olympics

The VANOC established and implemented construction plans for their Olympic venues and facilities based on optimisation of post-Games usability. The establishment and implementation of the legacy plan for post-Games use was carried out in close cooperation with local governments (Richmond and Whistler) and other stakeholders. In addition, the opinions of local community and management bodies were reflected as much as possible, from the design stage forward, through close cooperation. The post-Games uses of Vancouver Olympic venues are shown in Table 5.3. The rest of the Olympic venues, which used existing facilities (Cypress Mountain, UBC Dong Mitchell Thunderbird Sports Centre, Whistler Creekside), have been used for their original purposes since the closing of the Olympics.

Table 5 3 Post-Games Use of Olympic Venues in Vancouver

Venues and Facilities	Post-Games use
Hillcrest Centre	Multi-purpose recreation centre
Richmond Olympic Oval	Community sports facility for local residents
Pacific Coliseum	Home stadium of professional ice hockey team (Vancouver Giants)
Whistler Olympic Park	Public facility
Whistler Sliding Centre	Training hub and opening to public

(Source: IOC, 2018a:online)

Transportation infrastructure in Vancouver improved because of the Olympics. Translink, a mass transportation system in Vancouver, improved its transportation infrastructure with the SeaBus ferry, 180 diesel-electric hybrid buses, and 48 new fuel efficient Skytrain cars for the metro system. In addition, the Vancouver High Speed Railway was built to link the airport to downtown Vancouver, and the Sea-to-Sky Highway linking Vancouver and Whistler was improved (IOC, 2018a).

5.4.1.2 Social Legacy from the Vancouver 2010 Winter Olympics

The VANOC used sustainability as a slogan and claimed the first sustainable Olympic Games. The Vancouver Olympics, from a sustainable point of view, set 'social inclusion and responsibility' as the top legacy aim. This meant that the VANOC not only considered the needs and interests of personnel, contractors, athletes and Olympic families, sponsors and partners (including government, Indigenous and sports partners) for the Paralympic Games, but also considered the needs and interests of external groups effected by the VANOC's activities. The OGI report after the Vancouver Winter Olympics assessed that, with regard to social engagement, the government made many efforts to implement inclusion, as portrayed in opportunities for women, Indigenous people and disabled people to participate in Olympic-related cultural festivals, in the recruitment of ethnic Koreans in the VANOC, the implementation of educational and promotional programs for minorities, the establishment of consultation systems with diverse players, and the increased accessibility to all stadium facilities (IOC, 2013d).

The Vancouver Olympics also sought to solve the social problems that were faced by hosting the Olympics. The province of British Columbia has a history of conflict between colonial settlers and Indigenous people. To solve these social problems, the VANOC planned 'Aboriginal participation and collaboration' as their social legacy aim. To achieve this goal, the VANOC worked closely with various stakeholders, including the IOC, Four Host First Nations, and the City of Vancouver. First, the Vancouver 2010 Indigenous Youth Gathering in Vancouver was held to strengthen the identity and pride of Indigenous culture and to promote Indigenous language and culture. The indigenous people displayed their arts, crafts, and food through large-scale exhibitions to promote various Indigenous cultures. This was the social legacy of the Vancouver Olympics, which shared diverse cultures and values through unprecedented Indigenous participation in Olympic history (VANOC, 2010a).

5.4.1.3 Environmental Sustainability

The Vancouver Olympic Games were the first to establish a new standard of sustainability.

All Olympic venues were built to meet Canada's eco-friendly standards. Olympic parks were built in Vancouver and Whistler, both of which used renewable energy created by recovering heat from sewage and wastewater treatment facilities near the area. The VANOC expected that 118,000 tons of greenhouse gases would be emitted by sponsors, 22,000 tons by partner agencies, and 128,000 tons by audiences, equalling a total of 268,000 tons during the Olympics. However, by cutting by 15 percent – 57,000 tons – it produced less greenhouse gases than the previous two winter Olympics. In addition, solar energy facilities were installed in the Olympic village, and hot water and heating supply facilities called Neighbourhood Energy Utilities were installed nearby. As a result, greenhouse gas emissions were reduced by 50 percent from that which was expected (IOC, 2011).

5.4.2 Actual Outcomes of the London 2012 Summer Olympics

5.4.2.1 Economic Legacy from the London 2012 Summer Olympics

The hosting of the Olympics was intended to support the regeneration of East London. East London was an abandoned industrial zone in the Lower Lea Valley, one of London's most underdeveloped areas. The London Olympics was an example of using the Olympics as a long-term urban renewal road map. Stratford, the target of London's long-term urban planning project, took advantage of the Olympics to start urban development. Ken Livingstone, former mayor of London, stated:

> It challenges the Olympics because it is the only way to get billions of pounds from the government, clean the soil, have infrastructure and build houses (Burrows, 2017:online).

Stratford Urban Regeneration linked to the Olympics included developing 100 hectares that used to be abandoned factories and landfills into urban cultural spaces. During the Olympics, 50 hectares of downtown areas were developed into parks and ecological habitats beside the stadiums. After the closing of the Olympics, in July 2013, the London Olympic Park was reborn as the Queen Elizabeth Olympic Park through an investment of £ 300 million from the UK government. The park was created with a complex cultural space that includes housing, schools, and a business district. Moreover, the Olympic

Village for athletes was changed into a residential district that has 2,800 flats (IOC, 2013b). The regeneration of East London has a long-term plan ready for 2030. The comprehensive plan consists of three phases: 1) Mobilisation (2009-2012); 2) Transformation (2012-2015) and 3) Regeneration (2015-2030). The final stage is intended to promote the development of East London into a leading region for sustainable living (LLDC, 2012).

The LOCOG sought to reuse existing venues to host sustainable Olympic Games and install temporary structures and overlays for efficiency. The new Olympic venues for the London Olympics were designed in close consultation with the ODA to take into account the Games-time and post-Games use. Also, the managing body of Olympic venues after the closing of the Olympics was clearly decided before the Olympics opened (IOC, 2013c). A total of 30 Olympic venues were used, with six temporary facilities. It also utilised ten existing venues in and around the Greater London area. Football stadiums in Scotland and Wales were also utilised. Although there are some exceptions, the 2012 London Summer Olympics can be defined as a distributed hosting of the Greater London area. Most of the Olympic venues were existing facilities, and temporary and new facilities were properly. In regard to the post-Games use of Olympic facilities, the LOCOG systematically planned – five years before the Olympics began – the recycling of Olympic venues for the next 30 years. Through separation and dismantling, most of the Olympic venues were dismantled or reduced after the closing of the Olympic Games to increase post-use and reduce maintenance costs.

Table 5 4 London Venues in Legacy

Olympic Venues	Post-Games Use
London Olympic Stadium	Hosted the 2017 World Athletic Championships and home stadium of West Ham United
Aquatics Centre	A flagship swimming centre for clubs, schools, athletes, and the general public
The Copper Box	A multi-use sports centre for the

	community, for elite training, and for competitions
Eton Manor	Major community sports centre including a hockey centre, five-a-side football pitches, and tennis courts
Weymouth and Portland	Upgraded National Sailing Academy provides state-of-the-art facilities for elite and community use
Lee Valley White Water Centre	Already open to the public, it continues to operate as a world-class white-water rafting centre

(Source: DCMS, 2012)

5.4.2.2 Social Legacy from the London 2012 Summer Olympics

The British government has put forward 'giving inspiration to young people' as a major social legacy from hosting the London Olympics. According to DCMS (2013), children in the UK had motivation to participate in sports and cultural activities throughout the Olympics. School sports programmes such as School Games, Change 4 Life Sports Club, Sportivate, and Premier League 4 Sport have expanded the participation of youth in sports. The DCMS also shows that the London Olympics themselves increased the motivation for young people to participate in sports. It said that 36 percent of children aged 5–10, 52 percent of teenagers aged 11–15 and 25 percent of those aged 16 –24 acted as major motivations in participating in more sports activities. The inclusion of 'giving inspiration to young people' in the legacy strategy of the London Olympics is seen as a precautionary measure by the British government to grow young people into healthy members of society through the encouragement of participation in sports, cultural, and volunteer activities related to the Olympics.

However, the actual figures show that the sports participation has been decreasing since the London Olympics. According to Grix et al. (2017), the UK people's participation in sports has been declining since the 2012 London Olympics. Although it rose sharply both

right after the London Olympics were confirmed in 2005 and post-2012 Games, it fell again after the Olympics and returned to the 2005 level.

5.4.2.3 Environmental Legacy from the London 2012 Summer Olympics

The London Olympics provided new standards for hosting sustainable mega-events, instigating a wide range of implications for the construction and event industries as well as for the preparation and execution of the events. The biggest achievement of the London Olympics in sustainability is the integration of sustainability into Olympic planning, design, and governance. For the first time in Olympic history, the London Olympics established a Commission for Sustainable London 2012. In line with this perspective, the London Olympics tried to design and construct Olympic venues and facilities in environmental aspects, with opinions from many stakeholders.

The London Games achieved 1) recycling more than 90 percent of waste, 2) designing buildings that can reduce water consumption by 40 percent, 3) reducing carbon emissions by 80,000 tons, 4) increasing energy efficiency at the Olympic Village by 25 percent and 5) using 100 percent eco-friendly wood for the construction of the Olympic Park. Moreover, the Resource Management Plan for the London Olympics was recognised as the best practice for hosting eco-friendly events. The sustainability of the LOCOG was awarded a patent (BS 8901:2009) by the British Standard in recognition of the innovation of the eco-friendly management system and was subsequently certified by the International Organisation for Standardisation (ISO 20121) (IOC, 2013b).

5.4.3 Overall Legacy Strategies for Sustainability in Both Olympics

Vancouver has made efforts to leave behind a legacy as the first Olympics to represent sustainability.

Strategy A: the sustainable legacy of the Vancouver Olympics was planned and designed in the direction desired by the stakeholders through communication between various stakeholders. For example, the community and the managing body participated in the

design process of Olympic venues to deliver a sustainable legacy. Through the communication of these stakeholders, Vancouver's Olympic venues are still being used as community sports facilities for local residents or as training venues for elite sports.

Strategy B: Vancouver Olympics tried to alleviate the social problems that Vancouver faces. While the host country usually tries to hide its social problems during the hosting period, the Vancouver Olympics carried out various programs in conjunction with the Indigenous people of BC to resolve issues caused by the hosting of the Vancouver Olympics. As a result of the social programs, Indigenous people who could have been alienated actively participated in the Olympics, promoting the Olympic spirit of peace and harmony and creating an atmosphere for social integration.

Strategy C: the Vancouver Olympics emphasised environmental sustainability and went along with Vancouver's Greenest City Action Plan. They also established environmental standards for the Olympics that will be followed in the future.

The 2012 London Olympics also shows the importance of careful planning that considers economic, social, and environmental sustainability.

Strategy A: In order to reduce the financial burden of host cities and minimise their social and environmental impact, the London Olympics considered subsequent large-scale international competitions strategically with the vision of a roadmap for long-term urban development. In the case of the 2012 London Olympics, the UK government selected the premeditated urban regeneration project area as the site for the Olympic venues and appropriately utilised government money in areas such as site clearance and transportation infrastructure.

Strategy B: The London Olympics had many impacts on increasing the benefits of the hosting city and contributing to the innovation of the national construction industry by utilising the Olympics as an opportunity for innovative construction projects. In addition, East London, which had been dilapidated due to soil pollution and construction waste storage, was promoted as a 'sustainable urban renewal' case through the Olympics,

contributing greatly to enhancing the image of the region.

Strategy C: The London Olympics was able to leave such a sustainable legacy because, based on the city's long-term sustainability roadmap, the ODA, the City of London, and the LOCOG all worked together to map out the 'economic, social and environmental sustainability' principle, from preparation to post-Games.

5.5 Conclusion

This chapter has analysed the Olympic legacy strategy, which includes implementing a legacy vision and governance in both the Vancouver and London Olympic Games. Unlike previous sports mega-events, which were focused on one-off success through top-down and state-directed sports policy, the Vancouver and London Olympics endeavoured to create and develop a sustainable Olympic legacy with close cooperation between the private and public sector in a wide range of fields from legacy conceptualisation to the post-Games legacy.

The first noticeable feature is that the two Olympic Games presented an Olympic vision and legacy implementation plan specifically reflecting the reality of the host cities. The OCOGs of Vancouver and London fully discussed and clarified the strategic approach the host country pursued from the bid phase, presenting it as an Olympic legacy vision with specific implementation plans. This is the result of the perception that the Olympic legacy should be planned and developed as a sustainable legacy with a long-term perspective, starting in the bidding phase, rather than just a short-term legacy, which occurs only during the preparation period and the Games. In the Vancouver Olympics, the main highlight of the Olympic legacy vision is that they planned it to benefit the community, throughout Canada as well as the hosting region, regardless of whether or not the city won the bid to be the Winter Olympics hosts. Thus, they took a strategic approach to the Olympic legacy, which emphasised that hosting the 2010 Winter Olympics would benefit the local community directly. On the other hand, in the case of the London Olympics, the creation and implementation of the Olympic legacy vision was accompanied by in-depth discussions on defining the Olympic legacy and how it could be realised in accordance

with the original plan.

The second key feature is that the two Olympics have established effective Olympic governance to deliver a sustainable Olympic legacy. In previous sports mega-events such as the Seoul 1998 Olympics, the Olympic legacy vision was implemented in top-down governance under the strong leadership of the central government. The implementation would not be problematic based on the strong power of the central government. However, since the late 20th century, with the emergence of various stakeholders, it should be accompanied by the establishment of Olympic governance and its proper use in order to leave a more positive and sustainable Olympic legacy. In this sense, the Olympic governance system for a sustainable legacy in both hosting cities were good examples due to the horizontal governance across public, private and voluntary sectors. In addition, Vancouver established an independent exclusive organisation for the Olympic legacy before the bid process. In the London Summer Games, they set up more detailed organisations to create a sustainable Olympic legacy. They established the organisations for the tangible legacy (ODA, OPLC), which are responsible for the Olympic stadia and facilities, and organisations for the intangible legacy (LOCOG, Legacy Trust), which are responsible for sport for all. Moreover, the Olympic Board, oversaw all Olympic projects implemented by Olympic organisations, and the CSL, monitored the legacy planning and implementation of the Olympic legacy by each Olympic body. It could be argued that the Vancouver and London Olympic governances were created by minimising reliance on the central government and planning a firm legacy vision from the legacy conceptualisation phase based on a rational and creative legacy perception.

Finally, The Vancouver and London Olympics established and implemented strategies for a sustainable legacy. From the legacy planning and results of both Olympics, this study found the following factors that improved the sustainability of each Olympics. Vancouver's strategy is largely divided into three: 1) the establishment of a legacy plan through communication with Olympics stakeholders; 2) an attempt to resolve social issues through the Olympics and 3) presenting the standards for environmental sustainability. The strategy for a sustainable legacy at the London Olympics is as follows: 1) establishing a clear goal of regional development by means of the Olympic Games; 2)

systematic planning of an Olympic legacy and the establishment of a legacy organisation and 3) the development of an Olympic legacy through connection with the local community.

In summary, the Olympic Games, held in Vancouver and London, decided their Olympic legacy visions with thorough planning of a sustainable legacy from the very first stage. The Olympic vision focused on creating an effective, practical and sustainable Olympic legacy, reflecting the reality of the host cities and countries. They also presented a legacy vision that considered all Olympic stakeholders. In addition, good Olympic governance has been established to realise the legacy vision, which is effectively operated from the bid phase to the post-Games period. It also demonstrated that the exclusive organisation for the Olympic legacy was established in the form of an independent, not-for-profit organisation for effective legacy management after the close of the Olympics.

The next chapter will look into the Olympic vision, governance structure and sustainable legacy plans of the PyeongChang Olympics .

CHAPTER 6 The PyeongChang Olympic Legacy Aims in Terms of Sustainability

This chapter offers empirical findings, presenting a case study of PyeongChang, examining what the PyeongChang Olympics sought to achieve and how the PyeongChang Olympics sought to achieve it. In order to examine this, an analysis of the PyeongChang Olympics legacy plan is conducted through the examination of government documents and interview data from people who have been closely involved in the PyeongChang Olympics in terms of sustainability and economic, social and environmental factors.

This chapter is structured using the triple bottom line (TBL) framework, examining the economic, social and environmental legacy of the PyeongChang Olympics and begins with a brief overview of the PyeongChang Olympic legacy vision during the bidding phase. The subsequent sections analyses a wide range of the legacy from the PyeongChang Olympics based on the triple bottom line framework. In the second section, I explore the economic legacy plan of the PyeongChang Olympics, which is one of the dimensions of sustainability. The third section explores the social legacy plan, and the last section analyses the environmental legacy plan of the PyeongChang 2018 Olympics.

6.1 Legacy Plan and Governance of the PyeongChang Olympics

6.1.1 Legacy Plan of the PyeongChang Olympics

Generally, it is not common in Olympic history for the same city to bid for the Olympics three times in a row. South Korea hoped to host the Winter Olympics from the 2010 Winter Games and won the right to host the 2018 Winter Olympics after the third attempt. The experience of the two previous Olympic bids was an opportunity to create a more concrete legacy plan in terms of sustainability. One interviewee, who worked as former governor of Gangwon Province and former president of the POCOG, said that:

> PyeongChang has failed in two previous bids to host the 2010 and 2014 Winter Olympics, but PyeongChang learned a lot from the last two failures such as ideology, vision, justification, legacy, layout of stadia and hosting strategy (Interviewee 01, 2019).

According to the International Olympic Committee (IOC), the first theme in the bid file contains the country's vision, legacy and communication. From the outset, the PyeongChang bid file indicated its own Olympic vision and legacy. In the previous bid file to host the 2014 Winter Olympics, PyeongChang's vision was to deliver five objectives: 1) to provide the perfect setting for the athletes and participants; 2) to form a legacy plan, which encourages the participation of young people in winter sports in Korea; 3) to develop a tourism industry in the host region and to develop South Korea as a new hub of winter sports in Asia; 4) to create a sustainable plan for the hosting region and 5) to establish peace on the Korean Peninsula (POBICO, 2006). In line with this perspective, PyeongChang made a promise to deliver an Olympic legacy through hosting the Games.

In PyeongChang's bidding file for the 2018 Winter Olympics, PyeongChang's Olympic Vision was to develop PyeongChang as the hub city of winter sports in Asia. Such development would ensure that public awareness of winter sports participation is raised, especially for young people, as well as the development of the tourism industry in South Korea, with its motto 'New Horizons'. PyeongChang also proposed the most compact Olympic Games in Olympic history, meaning that all stadia can be reached within 30 minutes. In addition, the POCOG established PyeongChang's four core objectives for successful hosting and operation of the Winter Games in their first official report in 2012, as shown below in Table 6.1. The POCOG planned ten practical strategies to achieve these objectives. When classified into the TBL framework (economy, society and environment), the practical strategies consisted of five economic strategies and five social strategies. One of the last environmental strategies of the TBL was not specified in the documentation. For this reason, this thesis draws on the environmental strategies outlined in the special report for the PyeongChang Olympics: the Green Dream O2 Plus Winter Games and bid file.

Table 6 1 PyeongChang Olympic Objective and Strategy

Dimension of sustainability	Olympic Objective	Practical strategy
Economic dimension	Economic Games	1. Minimum cost, Maximum benefit: Financial balance 2. Construction of convenient transportation network between metropolitan area and PyeongChang 3. Creating and leaving a sustainable legacy: Ensuring post-Games use of sport venues and developing into a winter sports hub 4. Successful marketing strategy: Sufficient sponsorship and enhancement of the national image and prestige 5. Maximizing the convenience of visitors: Expansion of accommodation facilities and tourism resource development
Social dimension	Cultural Games	1. Development of quality and distinctive cultural and tourism products 2. Ensuring widespread continued public participation in Olympics: Opportunity for national unification 3. Establishing facilities and systems in the centre of the competition: Achieving the best conditions and best records
	Peaceful Games	1. Starting point of cooperation and rapprochement between South Korea and North Korea 2. Ensuring a complete safety Olympic Games
Environmental dimension	Environmental Games	1. Design for Less: Reducing forest fires, greenhouse gas and pollution emissions

	2. Design for More: Protecting natural ecosystem and biodiversity 3. Invest in Offsets: Carbon offset and renewable energy through afforestation

(Adopted from POCOG 2010 and 2013)

6.1.2 Governance of the PyeongChang Olympics

The POCOG was established on 19 October 2011 for systematic planning and preparation of the PyeongChang Olympics. The POCOG is largely divided into two organisations: 1) the general committee, with policy-making functions such as securing resources, budget, and approval of projects and 2) secretariat in charge of execution and operation.

As of 2016, the PyeongChang Organising Committee's general meeting of its members consists of a total of 134 members, including 100 official and 34 elected members. The official members of the committee consist of people from various backgrounds, including the organising committee, the government, the National Assembly, Gangwon Province, the sports council, the media, culture, arts, and religion. In the case of elected members, the committee is composed of sports figures who experienced international sport events (POCOG, 2017b). The secretariat of the POCOG is in charge of the actual preparation, planning, and operation of the Olympics. The structure of the secretariat's position is fluid from the beginning. They have planned in advance to change the number of staffs and organisational structure according to its stage as shown in Table 6.2. Based on the review of key functional areas of each stage, from the initial stage of its launch to the hosting of the Olympics, the reorganisation of the secretariat of the POCOG was institutionalised. This is the result of a lesson learned through hosting the Seoul Olympics (Im, 2016).

Table 6 2 Organisational Changes of the POCOG

Sort	Period	The Number of Staff	Main Tasks

Preparatory Stage	10. 2011–beginning of 2012	50	Corporation registration and establishment of operation plan Maintaining the communication system with the IOC
1st Stage	2012	118	Master Plan for competition preparation by stage and sector
2nd Stage	2013–2014	276	Detailed operation plan by project and function
3rd Stage	2015–2016	876	the final preparation stage of the Olympics Hosting test event
4th Stage	2017–2018	1,198	Final Organisation for running of the Olympics

(Source: POCOG, 2013)

In terms of human resources of the POCOG, a large number of public officials were in the POCOG. The organisation was composed of 213 public officials dispatched by central government agencies (17.7 percent), 362 public officials dispatched by local governments (30.2 percent), and 623 civilian employees (52.1 percent), as of 2016 (POCOG, 2017b). One of my interviewees working for the POCOG described the structure and influence of the organisation as follows:

> The POCOG had a really high percentage of public officials. About half of the staff were dispatched from central and local government and the percentage of public officials from central government is high for important tasks in making decisions (Interviewee 06, 2019).

However, it can be said that central government officials have the largest influence over the figures shown above. Given the size of the Winter Olympics, it simply does not allow local governments to handle everything; administrative and financial support from the central government is an important factor in operating the Olympics.

6.2 Analysis of the PyeongChang's Legacy Aims

First of all, it should be noted that the main agent of the PyeongChang Olympics was Gangwon Province, which contains the hosting cities of the 2018 Winter Olympics:

PyeongChang, Gangneung and Jeongseon. For this reason, almost all legacy aims of the PyeongChang Olympics sought to deliver a positive legacy for the Gangwon region. The next section will explore PyeongChang's legacy aims, which were planned to deliver a positive and sustainable legacy to South Korea, as well as to the hosting venue.

6.2.1 Economic Legacy Aims of the PyeongChang Olympics

In the PyeongChang's bid (POBICO, 2010b), the 2018 PyeongChang Winter Olympics sought to be a catalyst for reviving the depressed economic situation in Gangwon Province. The PyeongChang bid argued that hosting the Olympic Games would promote Gangwon Province as a logistics hub in Northeast Asia and as a winter sports hub. It could also lead to regional economic development by post-utilization of stadia and facilities after the closing of the PyeongChang Games in terms of winter sports tourism. In addition, the costs of hosting the Games could be decreased through the reuse of existing facilities. In line with this perspective, PyeongChang sought to clarify the ownership of Olympic facilities after closing the Olympics to prevent tax payers' money from being wasted as a 'white elephant'.

The priority of Gangwon Province, where the PyeongChang Olympics was held, was to develop the province into an Asian winter sports and logistics hub, and thus encourage its economic growth (RIG, 2011). At the time of PyeongChang's bid, the number of people from China, Japan, Taiwan and Southeast Asia who want to visit PyeongChang to enjoy winter sports was growing more than 5 percent each year, and the number of The percentage of South Koreans who enjoy winter sports was growing at 10 percent every year (POBICO, 2010b). Thus, the hosting of the PyeongChang Olympics was expected to maximize interest in winter sports among young people who make up a large population in Asia. The PyeongChang bid hoped that the construction of winter sport facilities and infrastructure for the Winter Games would provide the opportunity for PyeongChang and Gangwon Province to develop into a winter sports hub in Asia. Also, PyeongChang as a city, which had participated in the Winter Olympics bidding process since the 2010 Winter Games, has increased its brand value as a hub for winter sports. Thus, PyeongChang sought to encourage economic growth in Gangwon Province by

inducing large-scale private capital investment. In addition, the development of the transportation infrastructure was expected to facilitate geographically dispersed inter-regional links in the Gangwon province.

6.2.1.1 Revitalization of the Local Economy in Gangwon

From as early as PyeongChang's first bid for the Winter Olympics, PyeongChang emphasized the positive economic impacts that the Olympics would bring to the local community. In the three bid files, PyeongChang's priorities were to revive the economic depression in Gangwon Province and promote regional development through the hosting of the Winter Olympics.

Those direct economic legacy aims ensured higher support from the local community than other candidate cities. Based on the Olympic working group report from the IOC (2010), PyeongChang received the support of 93 percent of the residents of the host region, and 91 percent of the national support. This showed that it has far higher support than its last rival cities. Munich received 76 percent of regional support and 68 percent support nationally, while Annecy received 81 percent support regionally and 88 percent support nationally.

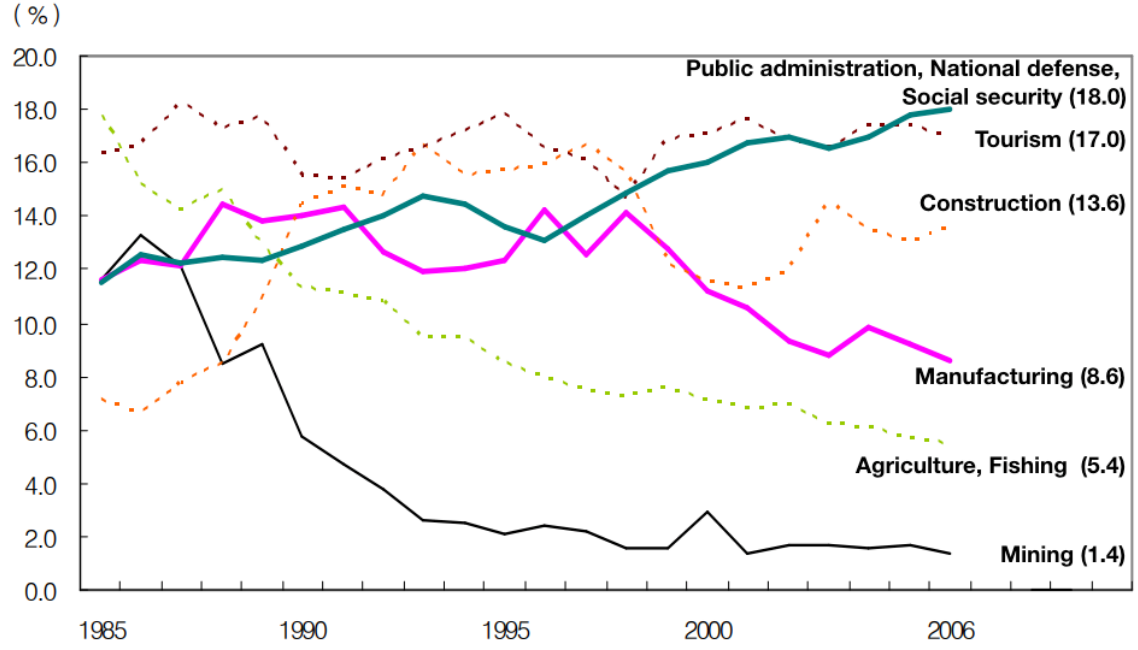
Behind the enthusiastic support for hosting the Olympic Games from people in Gangwon, however, there was a relatively sluggish economy in the region. According to a survey conducted in Gangwon Province, Gangwon Province's weakness could be accounted for by: 1) the conception of Gangwon as a dead-end district and an outlying side of South Korea due to a backwards infrastructure; 2) the weak capital formation in Gangwon Province due to low industry and economic activities and 3) the decline of vitality in the region due to a rapidly aging society (Gangwon Provincial Office, 2012). One member of the PyeongChang bidding team noted what the hosting of the PyeongChang Olympics meant for Gangwon Province:

> The PyeongChang Winter Olympics was a breakthrough for Gangwon-do to develop. The opportunity for Gangwon Province, which is considered a remote region as a symbol of a backwoods area, to escape from the stigma

> was the hosting of international mega-events such as an Olympic Games. Gangwon should take a bottom-up approach to develop, in which Gangwon Province itself acts pre-emptively, not to wait for central government initiative. This approach started with the beginning of long journey for the PyeongChang Winter Olympics (Interviewee 01, 2019).

The primary economic legacy aim of PyeongChang's bid for the 2018 Winter Games was to revitalize the Gangwon Province by hosting the Olympics. The POCOG established economic legacy strategies to boost PyeongChang's brand value and thereby promote private capital investment (POBICO, 2010b). At the time of PyeongChang's third bid in the late 2000s, the economic growth rate in Gangwon Province had grown by 2.8 on average over the past decade, falling far short of the 4.2 percent growth in domestic economic growth. This implies that Gangwon Province missed out on the balanced economic development of South Korea. Although Gangwon Province has a wide range of far-flung areas, accounting for 16.7 percent of South Korea, gross regional domestic production in Gangwon Province accounted for only 2.5 percent of the country in 2010. This represents a consistent downward trend in Gangwon Province when compared with the 4 percent figure in 1985 and the 2.8 percent figure in 2000 (The Bank of Korea, 2008). The major regional industries in Gangwon Province – agriculture, fishing and mining – had declined sharply since the 1980s, and manufacturing, which is a major driving force for regional economic growth, had weakened, as illustrated in Figure 6.1.

Figure 6 1 Changes in Gangwon's Industrial Structure



(Source: The Bank of Korea, 2008: 3)

To overcome the economic crisis in Gangwon Province, it established legal plans for Gangwon, also known as the Gangwon Comprehensive Plan 2012-2020, based on the 4th Comprehensive Territorial National Plan. Additionally, Gangwon also published a non-official action plan: the Comprehensive Development Strategy in Gangwon by Hosting PyeongChang 2018 Winter Olympic Games to maximize the positive impact of the Winter Games on Gangwon. In the action plan, Gangwon sought to spread the tangible and intangible impacts of the hosting PyeongChang Olympics to the other 15 cities in Gangwon, as well as the 3 hosting cities. Specifically, the main aims of the plan were to create a regional network cluster based on transport infrastructure and promote new industrial convergence in Gangwon (RIG, 2011).

As presented in Table 6.3, Gangwon sought to set up first a special economic belt, focusing on the main cities of Gangwon: Chuncheon, Wonju and Gangneung. Then, they sought to create new local businesses that are both distinguished and competitive for each strategic industry and improve transport infrastructure drastically for the revitalization of material and personnel bridges between inter-city roads in Gangwon. The reason behind this strategy was the unbalanced development of cities in Gangwon. Because the three

major strategic businesses that have been pursued by Gangwon since 2000 – the bio-industry, medical instruments and the new material industry – were focused on the main cities in Gangwon, the spread to the other cities in Gangwon was less effective. Hence, Gangwon sought to offer balanced regional development between the hub cities and nearby cities through the 2018 Winter Games (RIG, 2011).

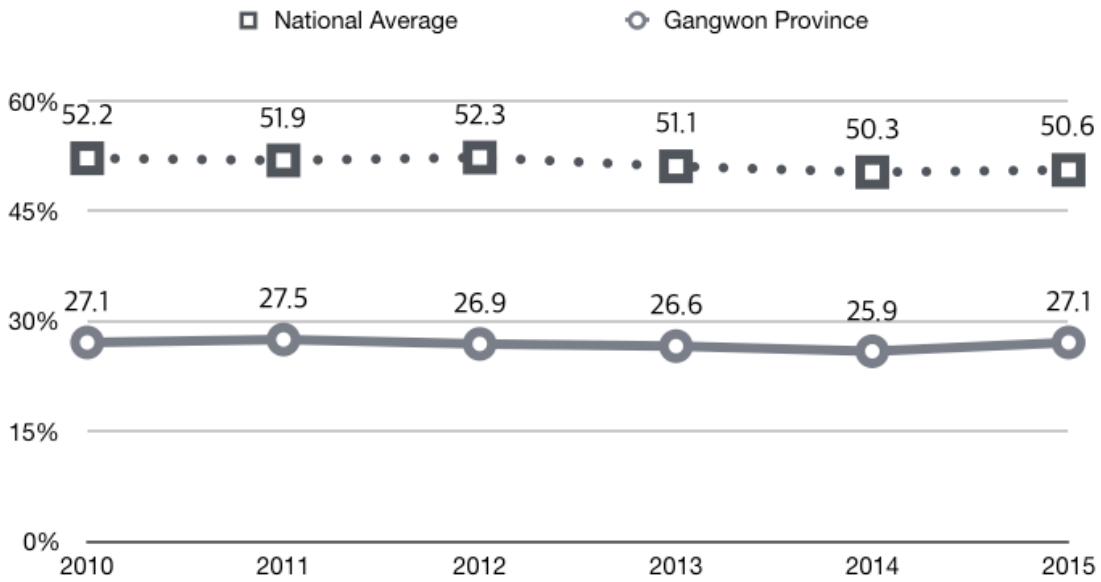
Table 6 3 Main Strategy of the Gangwon Development Plan

Main strategy	Contents
Gangwon new growth axis 3 x 4 economic belt	Establishing specialized economic belt considering regional characteristics, based on main cities in Gangwon
Gangwon industrial city: Business-friendly Gangwon	Developing a competitive specialized industry to improve regional characteristics
Fostering of emerging sector	Developing new emerging sectors: Green economy, culture and military.
Transport infrastructure	Construction of railway, motorway and road

(Source: RIG 2011)

In reality, however, the financial situation in Gangwon was not sufficient to implement the strategies. The financial independence of Gangwon Province is very low compared to the average of South Korea. As Figure 6.2 shows, Gangwon Province's financial independence stood at 27.5 percent as of 2011, far below the national average of 51.9 percent. Given the financial situation in Gangwon, ranked at one of the lowest regions among the 17 cities and provinces nationally, it seemed almost impossible to carry out Gangwon’s development plan on its own.

Figure 6 2 Financial Independence Rate of Gangwon Province



(Source: e-Korea Index 2019 and Hwang et al. 2016)

One of my interviewees working for Gangwon Province stated that:

> Gangwon Province is a very remote area, so Gangwon Province has never held a big event like the Olympics. The reason why Gangwon-do tried to host the Olympics three times is because the Olympics can be a catalyst for development in Gangwon Province. Gangwon Province was hoping for the influx of external capital such as government fund through the hosting PyeongChang Olympics (Interviewee 10, 2019).

It could be argued that the Winter Olympics were key to securing the justification of the central government's financial support in the process of preparing for the Olympics, as the Winter Games represented Gangwon's strategy for capital injections. While the Sochi Olympics represented a development strategy under the strong leadership of the central government, the PyeongChang Olympics represented an economic development strategy under the leadership of local governments, which encouraged the central government to invest heavily in building infrastructure in Gangwon Province through the hosting of the Olympics as a national event. Through the massive government budget, Gangwon sought to enact the construction of a large-scale transportation infrastructure that can facilitate the Gangwon's development as logistic hub.

6.2.1.2 Transportation Infrastructure

Although Gangwon Province has a wonderful natural environment that is an optimum condition for hosting the Winter Olympics, Gangwon Province is also ironically treated as a remote region due to its natural environment. The mountainous terrain unique to Gangwon Province has, until now, caused a national imbalance during the 5,000-year history of Korea. The introduction to Gangwon Province, which is written on the website of the Gangwon Provincial Government, states that:

> … the biggest characteristic of the natural environment in Gangwon Province eventually is the mountain. Due to many mountains, there is less farmland, which is directly related to the underpopulation. Hence, there has not been a large city in Gangwon Province and Gangwon Province is still a long way from the concept of development from a modern point of view (Gangwon Provincial Office, 2019).

Due to these geographical shortcomings, Gangwon Province has not formed a metropolis when compared with other South Korean provinces, and the transport infrastructure between the major cities in Gangwon, as well as infrastructure connecting it to Seoul, the capital of South Korea, was also inadequate. In addition to the inter-city transport infrastructure, the road infrastructure in Gangwon was also inadequate. As of 2011, when the PyeongChang Olympics were confirmed, Gangwon Province's road network was the lowest in South Korea, as shown in Table 6.4 For these reasons, Gangwon Province sought to improve and construct its transportation infrastructure.

Table 6 4 National Road Infrastructure in South Korea, 2011

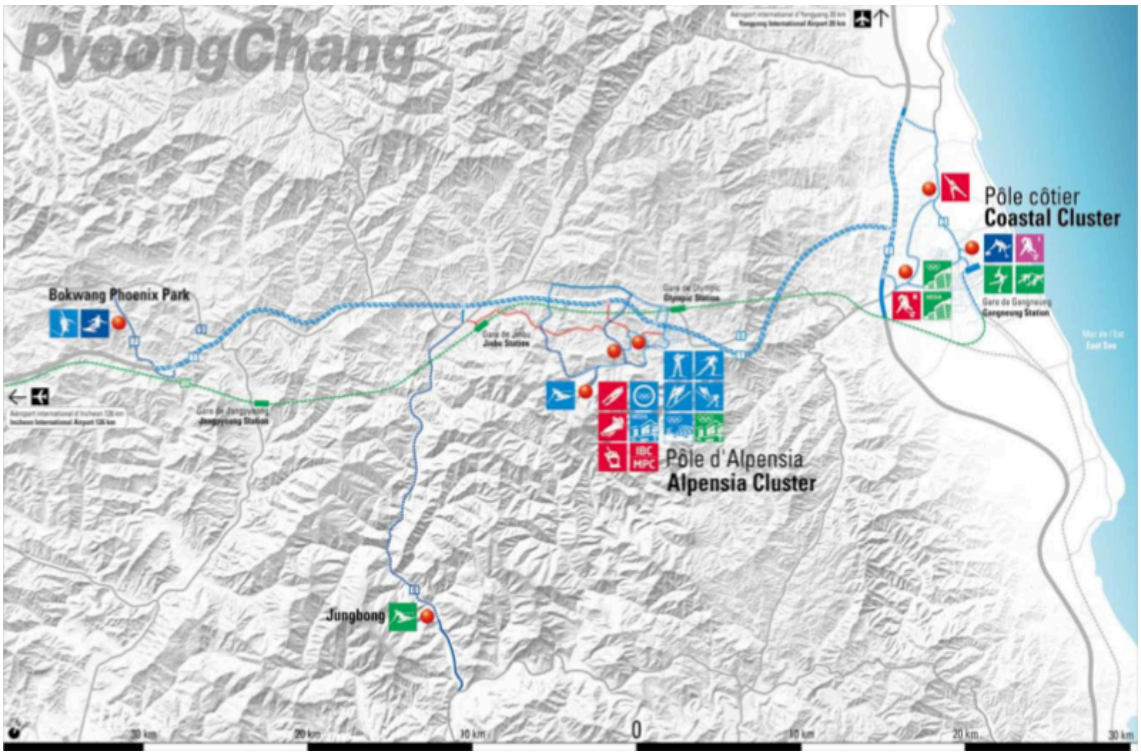
	Area (km^2)	Population (Thousand)	Road Length (km)	Road Pavement (%)	Road Density (km/km^2)
National Total	100,212	48,989	105,931	80.4	1.06
Seoul	605	10,039	8,199	100	13.55
Gyeonggi	10,176	11,818	13,379	84.9	1.32

Province Gangwon Province	16,874	1,434	9,791	72.3	0.58

(Source: e-Korea Index 2011:online)

In the bid book, PyeongChang described a concrete plan to build transport infrastructure. The importance of a legacy plan for transport infrastructure to host a successful Winter Games was recognized at an early stage of the development of PyeongChang's bid. The main aim of the transport plan was to realize PyeongChang's Olympic concept: the most compact Winter Games plans in history (POBICO, 2010b). To realize this concept, PyeongChang located all competition venues in two Clusters 30 km away – the PyeongChang Mountain Cluster and Gangneung Costal Cluster– and planned to ensure that the travel time between the Clusters was no longer than 30 minutes, as Figure 6.3 shows below. It also planned not to exceed two hours of total travel time from Incheon International Airport, the main airport of South Korea, to PyeongChang. They sought to establish a multi-model transport system using a transport network of high-speed railway, motorways, national highways and airways.

Figure 6 3 Venue Location in PyeongChang



(Adopted from POBICO, 2010b: 80-81)

The main strategic objective of the transport plan for the 2018 PyeongChang Winter Games was to build a high-speed railway, motorway and national highway across Gangwon Province. The strategic approach was a good opportunity for Gangwon to seek support from the central government for the most urgent projects, using the PyeongChang Olympics as a pretext. In addition, these projects were previously planned as national projects, but were delayed, so Gangwon Province took advantage of the PyeongChang Olympics as a good opportunity to implement them earlier.

In fact, the central government of South Korea established the Comprehensive National Territorial Plan to actively respond to changes in conditions at home and abroad and to new national development strategies and policy frameworks. Plans to develop the transportation date back to the early 20th century, with the 4th Korean Plan being established in 1999 before PyeongChang's first bid. In the 4th Comprehensive Territorial National Plan published in 1999, the Government of the Republic of Korea included a plan to expand the transportation network in Gangwon Province. The previous Gangwon

governor commented on this National Plan:

> Construction of the high-speed railway between Wonju and Gangneung has been a top priority since PyeongChang's first bid. It takes at least three hours from Incheon International Airport to the host city. I thought that the construction of the high-speed railway between Wonju and Gangneung would not only overcome the long distance between Inchon Airport and PyeongChang and enhance the competitiveness of the city's bid, but also bring about a revolutionary change in Gangwon Province. In 1999, the National Transportation Network Plan included a high-speed railway between Wonju and Gangneung, but since it was scheduled to be completed in 2019, the government planned to push ahead early with the hosting of the Winter Olympics (Interviewee 01, 2019).

The ultimate goal of the transportation development was to pursue the development of Gangwon Province as an international hub and overcome the unequal regional development in Gangwon as well as South Korea. As illustrated in Figure 6.4 the high-speed railway was designed to connect to the two cities between Inchon Airport, which is located in West Sea, the westernmost part of South Korea, and Gangneung, which is located in East Sea, the easternmost part of South Korea. The crossing connection of South Korea was a strategy approach at the governmental level according to the rapid economic development of countries near East Sea: Japan, China and Russia – particularly China (ROKG, 2011). It was also expected that the high-speed railway would be an innovation in the logistics system linking Korea to the East and West. Thus, due to the expansion of transportation infrastructure, Gangwon Province sought to develop into a logistics hub in Northeast Asia. It was an opportunity to overcome the division of the Republic of Korea – which means that South Korea could not use the land route of North Korea – and to restore the volume of logistics that is concentrated in other regions.

Figure 6 4 High-speed Train for PyeongChang Olympics

(Source: VisitSeoul, 2018:online)

6.2.1.3 Securement of a Sustainable Economic Legacy for PyeongChang

Throughout modern Olympic history, hosting the Olympics has been a method to justify the cost of infrastructure and the changing of a city's skyline. Likewise, a number of Olympic stadia and facilities were built to host the PyeongChang Olympics. To successfully host the PyeongChang Olympics, the construction of large-scale stadia and facilities involving huge budgets was mandatory. The PyeongChang bid sought to ensure the use of post-Games facilities, as well as the reuse of existing facilities, to relieve the financial burden of construction of the Olympic facilities. In the PyeongChang bid book, they planned to re-use 7 sports venues and construct 6 new venues for the Winter Games.

As previously mentioned, Gangwon Province had successfully hosted the 1999 Winter Asian Games. As a legacy of the 1999 Winter Asian Games and two previous failed bids for PyeongChang, PyeongChang decided to reuse 7 sports venues for the Winter Olympics. In fact, the 1999 Asian Winter Games, which were a prelude to PyeongChang's Olympic bid, provided South Korea, the wasteland of winter sports, with the right setting for the Winter Games. Moreover, it left a variety of positive legacies. The Gangwon Winter Asian Games was also an excellent choice, and its preparations and successful hosting were also a ray of light for the PyeongChang Winter Olympics (Interviewee 09, 2019). Based on its experience in successfully hosting the Asian Winter Games, Gangwon

Province officially announced its bid to host the Winter Olympic Games at the closing ceremony of the 1999 Asian Games (Lee, 2017).

In addition, PyeongChang's two previous failed bids also left a positive legacy for hosting the Winter Games. As Torres (2012) argues, a candidate city can obtain benefits in the process of a failed bid for the Olympics. First of all, many scholars claim that participating in the bid garners international attention (Andranovich et al., 2001, Tolzmann, 2014). In this sense, PyeongChang, which used to be a less well-known area in Gangwon, has also garnered international attention and developed a reputation as a winter sports city through its two-time Olympic bidding process. Furthermore, the sports facilities built as part of the two failed bids also contributed greatly to the hosting of the PyeongChang Olympics. The two prior bids provided the region with a key opportunity to develop sport facilities, which were built as part of the bid. The most important sports facility was the Alpensia Resort. Alpensia Resort, which was part of the first and second failed PyeongChang bid, is a ski resort and tourist destination that broke ground in October 2006 and was completed in July 2010. PyeongChang planned to construct the three Olympic venues: biathlon, cross-country skiing and ski jumping (POBICO, 2010b).

As can be seen in Table 6.5, the total number of sports venues for the PyeongChang Olympics was planned to be 13. The PyeongChang Olympics venue was divided into two clusters: the Gangneung Costal Cluster, which hosted all ice sports, and the PyeongChang Mountain Cluster , which hosted skiing and sledding events.

Table 6 5 Competition Venue and Post-Games Use

	Cluster	Name	Sport	Post-Games Use / Ownership
New	PyeongChang Mountain Cluster	Alpensia Sliding Centre	Luge (3 events) Bobsleigh (3 events) Skeleton (2 events)	Venue and Leisure Facility (Off-season) /

				Gangwon Province
		Jungbong Alpine Venue	Alpine-Speed (6 events)	Ski Resort / Gangwon Province
	Gangneung Costal Cluster	Union Hockey Centre	Ice Hockey (1 event)	Move to Wonju / GangNeung City
		Youngdong College Gymnasium	Ice Hockey (1 event)	Public Sports Facility / GangNeung City
		Science Oval	Speed skating (12 events)	Exhibition Hall and Ice Rink / GangNeung City
		Gyeongpo Ice Hall	Figure Skating (4 events) Short track (8 events)	Multi-Purpose Hall and Public Ice Rink (lower level) / GangNeung City
Existing	PyeongChang Mountain Cluster	Alpensia Biathlon Centre	Biathlon (10 events)	Venue / Gangwon Province
		Alpensia Nordic Centre	Cross Country (12 events) Nordic Combined	Venue / Gangwon Province

		(3 events)	
	Alpensia Jumping Park	Ski Jumping (3 events) Nordic Combined (3 events)	Venue / Gangwon Province
	YongPyong Alpine Venue	Alpine-Technical (4 events)	Ski Resort / YongPyong Resort
	Bokwang Freestyle Venue	Freestyle (6 events)	Ski Resort / Bokwang Phoenix Park
	Bokwang Snowboard Venue	Snowboard (6 events)	Ski Resort / Bokwang Phoenix Park
Gangneung Costal Cluster	GangNeung Indoor Ice Rink	Curling (2 events)	Public Sports Facility and Public Ice Rink (lower level) / GangNeung City

(Source: POBICO, 2010a: 33)

PyeongChang sought to prepare for certain post-Games use of Olympic stadia in the bid stage. Since it was expected that the necessary alpine, bobsleigh, and ski jumping stadia would not be easy for the general public to use due to safety problems, PyeongChang planned to build an efficient stadium suitable for post-Games use, based on planning from the design stage through comparative analysis of problems in past host cities around world. As a result, it sought to leave all of the stadia as an Olympic legacy, with sustainability being considered a top priority (RIG, 2011).

As shown in Table 6.5, 7 existing winter sport venues planned to be used again, 5 of them use without additional works: 1) Yongpyong Alpine Venue; 2) Bokwang Freestyle Venue; 3) Alpensia Jumping Park; 4) Alpensia Biathlon Centre and 5) Alpensia Nordic Centre. Two others venues required permanent works: Gangneung Indoor Ice Rink and Bokwang Freestyle Venue. In addition, PyeongChang's bid included a proposal to build a total of 6 new venues for the Olympics. Two of the sports venues were planned to be built regardless of the results of the Olympic bid, Jungbong Alpine Venue and Gyeongpo Ice Hall. PyeongChang also planned to build 3 new venues depending on whether the Olympics were held: 1) Alpensia Sliding Centre; 2) Science Oval and 3) Youngdong College Gymnasium. Interestingly, Union Hockey Centre was planned to be built as a temporary facility and move to Wonju after the end of the competition to promote balanced winter sports development in Gangwon Province.

As for the post-Games use of sports venues after the end of the Olympics, PyeongChang's bid set up a plan to transfer their existing ownership to local governments or private companies in order to ease Gangwon Province's financial burden (RIG, 2011). As shown in Table 6.5, most sports venues in the Gangneung Coastal Cluster have rights transferred to Gangneung city. The rights for venues located in Bokwang Phoenix Park (Freestyle and Snowboard) and Yongpyong Resort (Alpine) will be transferred to the respective private companies. On the other hand, the venues located at Alpensia Resort are planned to be managed directly with Gangwon Province after the Olympics have ended. The establishment of such a legacy plan is aimed at reducing the financial burden on Gangwon Province as well as preventing 'white elephant' after the Olympic Games. However, due to the small population in Gangwon Province, it can be seen that the Gangwon Province wanted to reduce the management costs by holding Olympic venues under private ownership or planning to relocate them to other city.

To sum up, the economic legacy aims of PyeongChang Olympics are: 1) economic development in Gangwon as a winter sports and logistics hub and 2) the securing of a sustainable economic Olympic legacy. In order to achieve those economic legacy aims, Gangwon Province sought to: 1) expand its transportation infrastructure and 2) secure post-Games use of Olympic facilities.

6.3 Social Legacy Plan of PyeongChang Olympics in the Bidding Phase

The bid for the PyeongChang Olympics sought to leave a sustainable social legacy for Gangwon Province. The main aim of social legacy of PyeongChang Olympics was the formation of social capital through the hosting of the Olympic Games. The subordinate social legacy aims are: 1) to generate national pride in people regarding their traditions and culture; 2) the development winter sports in South Korea and 3) the development of inter-Korean relations.

6.3.1 Pride in South Korean Traditions and Culture

As described previously, Gangwon Province has been undeveloped and only sparsely populated due to its geographical landscape, with mountainous areas accounting for 82 percent of the terrain. The unbalanced development of South Korea caused a continued economic downturn in Gangwon Province, which has led to a major crisis for Gangwon residents and a significant loss of local self-esteem. Also, due to the nature of the cities scattered across Gangwon, it has been difficult to bring about community integration within Gangwon. Therefore, Gangwon Province sought to use the PyeongChang Winter Olympics as a breakthrough to resolve these issues (Gangwon Provincial Office, 2012).

Culture is one of the pillars of the Olympic mission, as stated in the Olympic Charter. The hosting of cultural games is one of the 5 key themes for realizing the vision of the PyeongChang Games. The Olympic cultural programme is an important opportunity to disseminate the identity of the host nation and host city to people around the world. It is also an opportunity to enhance the cultural pride and identity of the residents. Hiller and Wanner (2015) posits that hosting a sports mega-event delivers psycho-social effects like positive attitude to the residents of the host city as a socio-cultural legacy. In the PyeongChang bid, they sought to promote Korean culture to the world. The successful hosting of the 1988 Seoul Olympics was an opportunity to grow democracy in South Korea and to raise global awareness about South Korea. In line with this perspective, the PyeongChang 2018 Winter Games sought to advance a new milestone to enhance the

value of South Korea and become an advanced country. In addition, PyeongChang also expected to have an opportunity to promote South Korea's traditional culture and 5,000-year history, as well as its dynamic modern culture (POBICO, 2010b).

The democratic process of South Korea, which began with the June Struggle in 1987, has brought much progress to politics in South Korea. However, this has lead to the shortcoming of regionalism becoming deeply entrenched in South Korea (Choi, 2012). In response, the Gangwon and Chungcheong provinces, which had relatively low regionalism, expressed a strong sense of alienation in terms of politics and economy. According to a survey result, when asked about their political sense of alienation, 67.9 percent of residents in Gangwon Province said yes when asked whether their region has been and will continue to be politically marginalized. On the question of economic alienation, 85.6 percent, the absolute majority of the Gangwon region, expressed their sense of alienation (Kim et al., 1999).

Gangwon Province sought to make the PyeongChang Olympics an opportunity to move beyond this regional identity and to develop into an advanced society. One interviewee recalled that:

> When it comes to Olympic Legacy, most people think of Olympic facilities, but a sense of citizenship is also very important as social Olympic legacy. South Korea has hosted a lot of international competitions for decades. After the competition, I experienced the mature sense of citizenship in the 2002 Asian Games in Busan. Although the Asian Games are relatively smaller than the Olympics, Busan people felt pride by hosting the successful event and their experience such as volunteer work and cultural campaigns. I also felt their increasing sense of citizenship and local identity (Interviewee 05, 2019).

The Gangwon provincial government announced the Gangwon Comprehensive Plan 2012-2020 to cope actively with the changing circumstances from hosting the Winter Olympics. Gangwon Province predicted that the PyeongChang Winter Olympics would provide the most important opportunity for innovation in Gangwon Province's history. In this sense, Gangwon Province has set up a new paradigm for Gangwon residents, called

the ‘Great Gangwon Province’. This was Gangwon Province's campaign to scale up the social capital of Gangwon residents under the new paradigm and promote economic development based on it (Gangwon Provincial Office, 2012). The ‘Great Gangwon Province’ Campaign consisted of three stages.

The first stage of the paradigm was the ‘Great People Campaign’, which re-established Gangwon's new regional identity. With the establishment of new citizenship in Gangwon, it was expected that: 1) public interest would take precedence over private interest; 2) a mature attitude would prevail to cooperate with groups in conflict for the public interest and 3) there would be an increase in volunteer activities. Through this process, Gangwon expected to secure a united and driving force for its residents to successfully host the Olympic Games. The second stage was the ‘Good Community Campaign’, which establishes the sense of local community. The campaign aimed to form a warm local society that deals with social problems, such as the aging society, the multicultural society and a neglected class of people. The final step was the ‘Green Economy Campaign’, which is to build a win-win economic system based on the social capital accumulation of Gangwon residents acquired through the previous two campaigns. It anticipated a green economy where mankind and nature work cooperatively and social and economic innovation capacity is enhanced by adopting low-carbon green city structures and low-carbon production economic structures. The campaign sought to lead to a virtuous cycle of capacity-building in Gangwon Province and serve as a stepping stone for sustainable growth (RIG, 2011).

As mentioned earlier, because Gangwon Province has so far been excluded from economic development plans, it has had fewer opportunities for global events and cultural experiences compared to other regions. Indeed, on the issue of the social legacy of the PyeongChang Olympics, one of the interviewees, who has worked as a public official in Gangwon Province for over 30 years, stated:

> I thought hosting an international event like the Winter Olympic Games would lead to a great turning point in the development of Gangwon Province. The only way to develop Gangwon Province was to take advantage of its own characteristics, resources and conditions. Rather than

> just waiting for the central government to do something for Gangwon, I thought Gangwon Province should set the stage for development by itself. The PyeongChang Winter Olympics, planned with this intention, would serve as an opportunity to promote Gangwon Province's culture and traditions to the world as well as encourage people in Gangwon Province who have never experienced an international event to be proud of themselves (Interviewee 01, 2019).

Many scholars have argued that community involvement in events results in social capital. Derrett (2003) states that the local residents' participation is strongly linked with enhancing a community's sense of place and sense of community. Gemie (2005) posits that hosting events plays an influential role in promoting regional identity. In line with this perspective, the POGOG set a social legacy plan to encourage active participation of people in Gangwon in order to promote the Gangwon regional identity.

6.3.2 Winter Sports Development

The PyeongChang bid sought to establish that the 2018 Winter Olympics would contribute to the development of winter sports in South Korea as a social legacy. This development of winter sports is largely divided into two categories: 1) to transform South Korea into a winter sports powerhouse that performs well in the Winter Olympics and other winter sports competitions; and 2) to promote wide participation in winter sports in South Korea.

First, PyeongChang's bid was designed to make South Korea a global winter sports powerhouse. In history of the Winter Olympics, the Republic of Korea has achieved stunning performances only in short track speed skating. The number of medals that South Korea won at the Winter Olympics are shown in the Table 6.6. As shown in the table, South Korea won a total of 53 medals from the 1992 Albertville Winter Olympics to the 2014 Sochi Olympics, 43 of which were from short track speed skating. Moreover, the rest of the medals won by South Korea were from ice sports, especially from skating, speed skating and figure skating.

Table 6 6 Olympic Medals of South Korea by Winter Games

Winter Olympics	Gold Medal	Silver Medal	Bronze Medal	Total Medal
1992 Albertville	2	1	1	4
1994 Lillehammer	4	1	1	6
1998 Nagano	3	1	2	6
2002 Salt Lake	2	2	-	4
2006 Torino	6	3	2	11
2010 Vancouver	6	6	2	14
2014 Sochi	3	3	2	8

To overcome this disproportionate balance, the Republic of Korea sought to maintain and strengthen its performance in ice sports, but also to provide diverse support for the other winter sports disciplines. In 2007, South Korea had the experience of advancing winter sports to the next level by implementing a plan called 'Drive the Dream' (KISS, 2011). One of my interviewees working for the bid team described the previous development of winter sports as below:

> Given South Korea won the medals in short track speed skating mostly in previous Winter Olympics, the Vancouver Olympics was the first time to win a gold medal in other sports. Kim Yu-na won the first medal in figure skating for South Korea. However, another winter sports such as skiing and high hockey were far behind other advanced countries. For the reasons, we aimed to win medals in those events, which we have never won a medal such as skiing and sledding (Interviewee 03, 2019).

As a result of the Drive the Dream plan, the Vancouver Olympics was an opportunity for South Korea to diversify their medal source, with the best Winter Olympic results ever for South Korea. To further promote the development of winter sports, South Korea has established Drive the Dream II. The 6-year sports development plan, published in 2011, sought balanced development and improved performance of winter sports for the PyeongChang Winter Olympics. The main strategic object of the plan was to be Top 4 in Winter Olympics, and its five key tasks are shown in Table 6.7. It is clear that South Korea instituted a plan to diversify their medal sources, as well as to achieve the best possible results in the PyeongChang Olympics.

Table 6 7 Five Key Tasks of Drive the Dream II

5 Key Tasks	1. To expand the infrastructure available for winter sports so that players can train at any time 2. To expand the pool of talented winter sports athletes 3. To promote the diversity of winter sports by encouraging balanced growth among events 4. To garner the support necessary to help winter sports become more scientific 5. To use winter sports to engender and build up the Olympic spirit

(Source: KISS, 2011:78)

Second, in line with this perspective and as part of the development of winter sports, the PyeongChang Olympics also sought to boost the participation and interest of the South Korean people in winter sports as a sport for all in the wake of the PyeongChang Olympics. As stated in Table 6.8, there were no winter sports on the list of South Korean preferences for sport for all.

Table 6 8 South Korean Preference for Sport for All

Year	1st	2nd	3rd	4th	5th
2008	Walking	Gym	Climbing	Football	Badminton
2010	Walking	Climbing	Gym	Football	Cycling
2012	Walking	Gym	Climbing	Swimming	Cycling

(Source: Ministry of Culture & Sports and Tourism, 2012)

This table is an indicator of the status of winter sports in Korea. Given the characteristics of winter sports, which is a seasonal and expansive category, the preference for winter sports could be relatively low. It is clear that the Korean people's participation and interest in winter sports was not high. The interviewee, who works on the Korean Sport & Olympic Committee, stated that:

I think it was difficult to participate in winter sports in Korea because of a

> lack of winter sports facilities. Participation in winter sports will be activated in Korea only when many winter sports facilities are built in Korea. However, there were not many facilities in Korea where people can enjoy winter sports. In this respect, I think the PyeongChang Olympics is a great opportunity for South Korean, especially Gangwon residents, to enjoy and participate in winter sports. I hope this opportunity will contribute greatly to the revitalization of sport for all in South Korea (Interviewee 4, 2019).

The PyeongChang Olympics intended that the construction of sport venues and facilities for Olympics would be an impetus for winter sports participation. Participation in winter sports is expected not only to contribute to the development of sports for all, but also to the strengthen the competitiveness of winter sports in Korea's future. Thus, in order to promote winter sports participation, proper post-Games use of the Olympic venues and facilities left behind after PyeongChang Olympics must be ensured.

6.3.3 Development of Inter-Korean Relations

The social strategy objective that PyeongChang sought as part of the Olympic bid was a trigger to improve inter-Korean relations through sports. Roh Moo-hyun, a former president of the Republic of Korea, was interviewed about the impact of hosting the PyeongChang Winter Olympics on inter-Korean relations in July 2007 at the 119th IOC session held in Guatemala City:

> A unified Korean team from South and North Korea could be a new opportunity to create a new milestone in the progress of inter-Korean relations… …In the process of forming the unified team for Olympics, various cooperation will take place between South and North Korea. The Olympic movement of peace and cooperation will become full between the two Koreas, promoting the atmosphere of peace on the Korean Peninsula very quickly (Lim, 2007).

Gangwon Province, where PyeongChang is located, is the only province in South Korea that was divided between South and North Korea after the Korean War. As the Seoul 1988 Summer Olympics served to ease Cold War tensions through sports, the PyeongChang 2018 Winter Olympics, which took place 30 years from then, were expected to serve as a catalyst for advancing relations between South and North Korea. Hence, PyeongChang

repeatedly stressed the significance of hosting the Olympics, a symbol of peace and harmony, in Gangwon Province, the only city divided by the civil war, in the process of the PyeongChang bid. As one interviewee, a member of the bid team, said:

> I thought Gangwon's concept of being able to differentiate itself from rival cities was harmony and peace. If reconciliation between the South and the North was created inside the divided Gangwon Province and the Olympics could serve as a venue for harmony, there would be no better reason to host the Olympics (Interviewee 01, 2019).

Since the armistice signed in July 1953, North Korea has so far maintained its power through a hereditary succession of power for three generations, also known as the Kim dynasty: Kim Il-sung, Kim Jong-il and Kim Jong-un. North and South Korea have been in a truce and have maintained that relationship under various military tensions, including the North's unsparing military provocations and nuclear tests.

At the time of PyeongChang's bid, North Korea conducted nuclear weapons tests twice under Kim the Jong-il regime, the second leader of North Korea and father of Kim Jung-un, who is current ruler of North Korea. The first nuclear test was in 2006 and the second nuclear test was in 2009. Although the purpose of North Korea's nuclear development can be assessed as a purely military strategy, it is believed that North Korea judged it to be an absolute strategy to maintain the regime after the collapse of socialism in the 1990s (Kim, 2017a).

Sports diplomacy through sports exchanges between the South and North contributes to the reunification of the Korean peninsula, which is a key policy goal of the both Koreas (Merkel, 2008). Essentially, South Korea has maintained an anti-communist policy towards North Korea since the administration of the first president, Syngman Rhee. However, inter-Korean exchanges through sports took place frequently to help ease the tension between the South and the North. At the 4th inter-Korean sports meeting held in 1991, a unified team from the two Koreas was confirmed for the 1991 World Table Tennis Championships and the 1991 FIFA World Youth Championship. Those sports exchanges worked as an advance guard for enhancing inter-Korean exchange (Kwon, 1991). South

Korea enforced the Sunshine Policy towards North Korea during the tenure of Kim Dae-jung and the Roh Moo-hyun presidency from 1998 to 2008. During these liberal presidents' administrations, the South Korean government recognized North Korea as a partner in peaceful coexistence and promoted inter-Korean exchanges. Based on the engagement policy towards the North, the two Koreas, as one Team Korea, marched together under the 'Korean Peninsula Flag' in the opening ceremony of the 2000 Sydney Olympics. As such, sports exchanges have been used as a tool for improving relations between the two countries in inter-Korean relations. Keech and Houlihan (1999) posit that it is very clear why sports are mobilized as a diplomatic tool, arguing that it can be explained by the fact that sports diplomacy is low risk, low cost and surprisingly effective compared to other diplomatic methods.

Gangwon Province had received continued support from North Korea during the previous two failed Olympic bids. Chang Ung, a North Korean IOC member, officially supported PyeongChang in the bid to host the 2010 Winter Olympics at the IOC Session in Prague, where PyeongChang's first Olympic bid was decided (Jang, 2003). In the process of bidding for the 2014 Winter Olympics, Kim Jin-sun, then-governor of Gangwon Province, visited Pyongyang, the North's capital, to draw up an agreement for cooperation in the Olympics. The documents included conducting joint drills between the two Koreas, forming a unified team between the two Koreas and joint participation in the opening and closing ceremonies. In this regard, one interviewee, who visited Pyongyang at the time, said that:

> I officially visited Pyongyang, the capital of North Korea, as governor of Gangwon Province, and drew up the agreement for cooperation in the Olympics. This is the result of Gangwon Province's continued efforts to host the PyeongChang Olympics. My visit to Pyongyang and the exchange of agreements were viewed as positive results in that I made IOC members aware that hosting the PyeongChang Winter Olympics is an opportunity to contribute to world peace through sport as an Olympic Movement and that it has officially elicited support from North Korea. It was also meaningful in that the agreement was signed based on the results of sufficient discussion and consultation. It secured mutual trust at home or abroad and laid the groundwork for sustainable cooperation system in the future (Interviewee 01, 2019).

Although North Korea offered support for PyeongChang's last two Olympic bids, they offered no support at the time of the third bid. It is clear that this is closely related to the strained inter-Korean relations in the late 2000s. After the presidency of two South Korean leaders, who adhered to the Sunshine Policy for 10 years, new president Lee Myung-bak's policy towards North Korea was the 'Policy of Mutual Benefits and Common Prosperity', based on the denuclearization of North Korea (Park, 2008). According to Choi (2008), the Lee administration's policy towards North Korea initiated the North's strong opposition. Subsequently, the North launched armed provocations, including its second nuclear test in 2009 and the bombardment of Yeonpyeong Island in 2010 in the preparatory period of PyeongChang's third bid. Due to the chilled inter-Korean relations, there was no official support from North Korea for PyeongChang's third Olympic bid. However, since the hosting of the PyeongChang Olympics was 7 years away at the time of PyeongChang's bid, the bid sought the possibility of inter-Korean exchange through sports (Gangwon Provincial Office, 2012).

To sum up, the social legacy aims of PyeongChang Olympics are: 1) to establish a mature cultural and civil society and 2) to improve relations between South and North Korea. In order to achieve those social legacy aims, Gangwon Province sought to: 1) have the people of Gangwon participate in the Winter Olympics as volunteers and 2) to maintain close cooperation with North Korea.

6.4 Environmental Legacy Plan of PyeongChang Olympics in the Bidding Phase

In accordance with the characteristics of the Winter Olympics, they have been held in a mountainous region. Thus, the destruction of nature was inevitable. For this reason, concerns relating to environmental protection and sustainable development were raised. The environmental Olympic legacy is to minimize the indiscriminate damage to nature caused by the hosting Winter Olympics and construction of Olympic facilities, as well as to raise awareness of green issues. In particular, the 1994 Lillehammer Olympics was the first 'green' Games, which raised environmental issues from as early as the preparation

stages. The 2000 Sydney Olympics was an opportunity to generalize the environmental responsibility of the Olympic Games, as the Olympics took into account the environment in all aspects, including the construction of stadia and the operation of games. In line with this, PyeongChang sought to fulfil the environmental challenge beyond simply satisfying the requirements about the level of stadium construction or greenhouse gas (GHG) reduction, which minimize environmental impacts. PyeongChang's environmental legacy plan aimed to set a high environmental standard as the first 'Green Dream: O2 Plus Winter Games' in Olympic history.

6.4.1 Green Olympic Games

The main aim of environmental legacy of the PyeongChang Olympics was to host 'O2 Plus Olympics', which is aimed at producing a low-carbon Olympic Games. South Korea also joined international efforts to cope with climate change by establishing a national vision of 'Low-Carbon, Green Growth' in 2008 and announcing a comprehensive plan for combatting climate change on a national level. The 4th Comprehensive Plan for Coping with Climate Change included the presentation of national GHG reduction targets and specific measures to reduce GHG in line with international status and minimizing the impact of climate change through technological development (Planning Group on Climate Change, 2007). In 2005, South Korea's total GHG emissions reached 591.1 million tons of carbon dioxide equivalent (MtCO2e), up 98.7 percent from 297.5 MtCO2e in 1990. In addition, South Korea ranked 6th in GHG emissions among the Organisation for Economic Co-operation and Development (OECD) countries, with the growth rate of emissions topping the list, as detailed in Table 6.9.

Table 6 9 Greenhouse Gas Emissions Index

Greenhouse related index	South Korea	Rank	Note
Emission	590 million tons	6th	1st USA(70.7) 2nd Japan(13.6)
Growth rates	90.1%	1st	2nd Turkey(72.6)

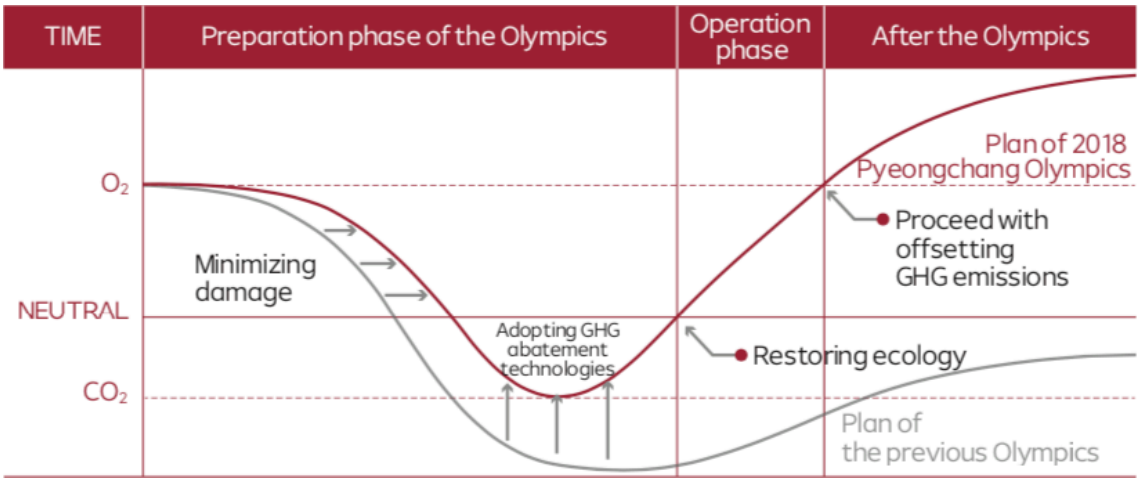
('90-'04)			3rd Spain(49.0)
Emission per person	12.28 tons pp	14th	1st Luxemburg(28.02)
Growth rates ('90-'04)	65.5%	1st	2nd Turkey(36.2) 3rd Spain(35.6)
Emission per GDP	0.59 tons per $1000	8th	1st Australia(0.80) 7th USA(0.61)
Growth rates ('90-'04)	∆32.9%	5th	1st Turkey(13.4) 2nd Portugal(21.42)

(Source: Ministry of Environment 2008:10)

The efforts of local governments, which are the main actors, are all the more important to effectively reduce GHG emissions to cope with climate change, along with central government efforts. In line with this government policy direction, Gangwon Province also established a long-term plan to reduce GHG emissions: The First Five-Year Green Growth Plan in Gangwon. From 2000 to 2008, green emissions in Gangwon were analysed in the range of 34,872,000 tons to 47,301,000 tons, with an average emission of 39,041,000 tons being analysed. Gangwon's GHG continued to increase from 2000 to 2008. In 2008, it had the highest emissions of 47,301 million tons, up about 7 percent from 2000 and up about 31 percent from 2005 (Climate Change Research Institute of Korea, 2012).

Gangwon Province, where the PyeongChang Olympics was held, is the most eco-friendly and well-preserved region in South Korea. There have been active and continuous efforts and strategies by the central government and local governments to preserve its natural environment. Thus, PyeongChang's bid for the 2018 Winter Olympics prioritized low-carbon O2 Plus Winter Games to drastically reduce GHG generated by the hosting of the PyeongChang Olympics. O2 Plus, as a more progressive measure to prevent climate change, is a new model that makes actual GHG emissions less than zero through more GHG reduction and carbon offset activities than those generated during the Olympic Games, through the hosting of a sustainable, low-carbon, green Olympics (POCOG, 2015). The concept of O2 Plus is as shown below in Figure 6.5.

Figure 6 5 Concept of O2 Plus



(Source: POCOG, 2015:31)

6.4.2 Minimization of Environmental Destruction

The second environmental goal of PyeongChang was to minimize damage to the environment in host cities caused by the PyeongChang Olympics. Gangwon Province has faced environmental damage problems in building stadia through past sporting events. In the process of constructing a steep slope for the 1999 Asian Winter Games, there were conflicts between Gangwon Province and environmental organizations due to the forest destruction on Balwang mountain. Although Balwang mountain was designated as a forest reserve at the time, Gangwon decided to an build alpine skiing venue that is up to the international standards of the *Fédération Internationale de Ski.* As one interviewee, who works Gangwon Province Office said,

> The construction of a ski slope on Balwang mountain in Gangwon Province was bitterly opposed by government departments such as the Ministry of Environment and Korea Forest Service because of the high environmental value of Balwang mountain. To solve this problem, Gangwon Province persuaded environmental oranisations by creating a development model to minimize the damage of nature, including protection and transplantation of trees. It also proposed to the Culture and Tourism Ministry that the government transfer the right to discuss environmental impact assessment of Balwang Mountain development to the governor of Gangwon Province when the Act on Support for the Asian Games was enacted. Although the slope was completed in 1997 after the special law was enacted in 1995, there was still a lot of opposition from

environmental groups (Interviewee 09, 2019).

Taking this example as a lesson, PyeongChang's bid sought to minimize environmental damage caused by hosting the Olympic Games. In this context, PyeongChang sought to ensure that all of the Olympic facilities were built in such a way that minimizes environmental damage. To prevent environmental destruction caused by construction of Olympic facilities, the PyeongChang Olympics sought to construct all Olympics venues according to eco-friendly construction techniques. It also made it requisite to restore natural areas after the closing of the Olympic Games, if a natural area has been damaged by the Olympics (POCOG, 2015). Another member who participated in the Olympics as a public official in Gangwon Province noted:

> As you know, the natural environment of Gangwon-do is the best in Korea. To preserve this environment and to comply with the environmental indicators that the IOC emphasizes to the host country, we have made a thorough pre-plan. Based on the lessons learned at the last Asian Winter Games, we agreed with the IOC that our top priority is to reduce destruction of the natural environment and restore the damaged environment after the Olympics (Interviewee 05, 2019).

To sum up, the environmental legacy aims of the PyeongChang Olympics were to host the most green Olympics yet. In order to achieve these environmental legacy aims, Gangwon Province sought to: 1) minimize GHG emissions and 2) minimize environmental damage.

6.5 Conclusion

This chapter ends with a brief summary of the initial legacy plan of the PyeongChang Olympics at the earliest stage, including the bidding phase. This chapter demonstrates the way that Gangwon Province, where PyeongChang is located, sought to achieve its goals through the 2018 Winter Olympic Games.

First, on the economic front, Gangwon Province proposed an economic legacy from hosting the Olympics. It aimed to secure an industrial base that could drive Gangwon's

economy through the Winter Olympics. As many past sports mega-events show, hosting international mega-sporting events has justified the use of taxpayers' money in social capital and infrastructure construction (Shoval, 2002). Accordingly, Gangwon Province hoped that hosting the PyeongChang Olympics would be the starting point for Gangwon Province's economic development. As the primary economic legacy, Gangwon Province focused on development as a winter sports hub and the construction of social capital that would be the foundation for its transition into a logistics hub in Far East Asia as well as South Korea as a second economic legacy. Additionally, the last sports mega-events held in Korea, the 1988 Seoul Olympics and the 2002 World Cup, were used as exemplars to explain the follow-up use of sports banquets in the bid file.

Second, Gangwon Province tried to leave a social legacy through the hosting of the Olympic Games. The focus was on building social capital for residents of Gangwon Province through the successful hosting of the PyeongChang Olympics. It also sought out economic growth on the basis of improving regional identity in Gangwon Province, which was lowered due to geographical and political restrictions. Fredline (2005) emphasised that hosting sports mega-event positively acts on improving the sense of pride of local residents. In addition, Gangwon Province, the only region in South Korea to be divided during the civil war between the two Koreas, also sought to open the door for inter-Korean exchanges through the hosting of the PyeongChang Olympics. I expected that easing inter-Korean conflicts through sports would be in line with the ultimate goal of the Olympics, as well as an opportunity to ease strained inter-Korean relations due to North Korea's nuclear development.

Finally, PyeongChang hoped that the 2018 Winter Olympics would raise the bar for future sports mega-events in terms of the environmental aspect. In order to actualize the Olympic Movement of eco-friendly Olympics, which is the trend of the Olympic Games, and deliver environmental legacies through the Olympics, the PyeongChang Olympics planned and pursued the best-ever eco-friendly Green Olympics. In this context, Gangwon Province sought to protect its original clean resources. In pursuit of the O2 Free Olympics, it planned to minimize carbon emissions to minimize greenhouse gases, the main culprit of global warming and climate change. It also planned to minimize

environmental damage due to the construction of stadia and infrastructure.

The next chapter will look into the actual outcomes on sustainability of PyeongChang 2018 Winter Olympics.

CHAPTER 7 Actual Outcomes on Sustainability of PyeongChang 2018 Winter Olympics

This chapter provides empirical findings on the actual outcomes of the plan for the PyeongChang Winter Olympics to leave a sustainable legacy. The main aim of this chapter is to analyse the actual implementation of PyeongChang's legacy plan in terms of sustainability. It also finds out what realistic difficulties the PyeongChang Games encountered in achieving the sustainable legacy planned in the PyeongChang bid files by evaluating the implementation of PyeongChang's legacy strategy in the context of South Korea.

7.1 Governance of the PyeongChang Olympics in terms of Sustainability

In order to deliver a sustainable Olympic legacy, the governance of the Olympics, which is deeply involved in legacy implementation and planning, is also an important factor. The governance of the PyeongChang Olympics was characterised by a high percentage of public officers from central and local governments, as explained in the previous chapter. The Olympic Games, which are held as a national task, were established as a temporary organisation and disbanded after the Olympics were held, even though it was a project that required a large number of people. With this particularity, some interviewees pointed out that the PyeongChang Olympics had some factors that impeded the sustainability in the governance aspects. One of my interviewees working at the POCOG for several years stated:

> The work continuity has been so poor that the work efficiency has been reduced. There were a lot of public officials on POCOG, but almost all of them were dispatched from central or local governments. It means they went back to their original work place in one or two years. Indeed, it made the work less efficient. Moreover, the president of POCOG has changed twice. It is bit disappointing in terms of work continuity (Interviewee 06, 2019).

Another interviewee spoke about the absence of sports experts in the POCOG:

> If we had experts from the bidding process, we could have reduced trial and error. Public officials in Korea are really excellent. The people who work at the IOC acknowledged them as a great human resource. However, they are not experts in sports and the Olympics. I wish the PyeongChang Olympics had hired sports experts from the beginning of the Olympic process. In fact, it was hard because the public interest and budget were low at the very beginning of the Olympic process (Interviewee 05, 2019).

Thus, first, the organisation should be organised by considering the continuity and efficiency of the work and expertise of committee members; second, sports experts ought to work together with officials throughout the Olympic Games to prepare for the Olympics efficiently and professionally.

7.2 Economic Legacy from PyeongChang Olympics

Firstly, the PyeongChang Olympics were profitable as claimed. Lee Hee-beom, the president of the PyeongChang Organizing Committee for the 2018 Olympic & Paralympic Winter Games (POCOG) announced that the PyeongChang Olympics generated a profit of 61.9 billion Korean Won or US$55 million (IOC, 2018b). In the bid file, the total initial revenue and expenditure was expected to be US$1,966 million. In fact, the PyeongChang Olympics generated a total of US$2,245 million, with a total expenditure of US$2,190 million as shown below in Table 7.1.

Table 7.1 Comparison of Revenue and Expenditure of the PyeongChang Olympics

Type	Bid File (07.2011)	4th Financial Report (02.2017)	Financial year (2018)
Revenue	1,966	2,235	2,245
Expenditure	1,966	2,501	2,190

Notes: Unit: USD million at average exchange rate of US$1 = KRW 1,116.70.

However, considering that the total expenditure did not include sports-related capital

costs and non-sports-related costs, the PyeongChang Olympics did not actually generate as much profit as claimed. It is clear that the US$2,190 expenditure in the financial year were the operational costs of POCOG. The costs for the PyeongChang Olympics are divided into three main categories; 1) Operational costs: the cost of running the Olympics incurred by POCOG, 2) Sports-related capital costs: the cost of building directly related to the PyeongChang Olympics such as Olympic venues and support facilities (Olympic village and media centres, etc.) 3) Non-sports-related capital costs: the construction costs of all infrastructure, incurred in preparation for the Olympics such as transportation infrastructure. Table 7.2 shows all expenditures related to the PyeongChang Olympics, excluding the operational costs of POCOG. As shown in Table 7.2, the highest cost is the transportation infrastructure built for the Olympic Games at US$8,446 million. This accounts for about 70 percent of the total expenditure of the PyeongChang Olympics. This figure shows what Gangwon Province and also the Republic of Korea wanted to pursue by hosting the PyeongChang Olympics.

Table 7.2 Breakdown of Total Budget by Type of Cost (Including Operational Costs)

Sort		Total	Government expenditure	Province expenditure	City and County expenditure	POCOG etc.	Note
Operational costs of POCOG		2,190	-	-	-	2,190	
Sports related capital costs	Olympic stadium	801	601	162	38	-	Government expenditure: 75% Local government expenditure: 25%
	Support facility	985	80	45	10	850	
Non-sports related capital costs (Transportation infrastructure)		8,446	6,064	102	33	2247	Government expenditure: 70% Local

						government expenditure: 30%
Total	12,422	6,745	309	81	5,287	

Notes: Unit: USD million at average exchange rate of US$1 = KRW 1,116.70.
(Source: Interviewee 09, 2019)

In addition, PyeongChang also experienced cost overruns as previous Olympics have. The total budget for the PyeongChang Olympics presented in bid files was 8.8 trillion Won (US$7,669 million), but the final cost, 13.3 trillion Won (US$12,422 million) is higher than its planned original budget by about 40 percent. This large increase in budget is mainly due to the additional budgeting for transportation infrastructure. The cost of constructing the transportation infrastructure (excluding provincial and rural roads) linking Seoul and Gangwon Province, including the high-speed railway and highway for PyeongChang, has more than doubled from 3.972 trillion Won (US$3,562 million) in its bid file to 8.66 trillion Won (US$7,398 million) as the final cost. There is no doubt that this astronomical amount of investment in the transportation infrastructure by the central and local government is clearly an impact of hosting the games and therefore an economic legacy of the Winter Olympics. The government of Gangwon Province not only wants to make up for lagging behind in balanced development but also hopes to develop into a logistics hub and a winter sports hub in Asia by taking advantage of the economic legacy built on the occasion of the Olympics.

7.2.1 Actual Outcomes of Economic Legacy from PyeongChang Olympics

The twin aims of PyeongChang's economic legacy were to promote the Gangwon Province as a winter sports hub in Asia and key logistic hub in Northeast Asia. To realize these aims, Gangwon Province set out strategies to construct the social infrastructure, mostly transportation infrastructure, and to ensure the use of the new Olympic venues after the games.

7.2.1.1 Transportation Infrastructures

Gangwon Province sought to construct transportation infrastructure by hosting the PyeongChang Olympics. Considerable transportation infrastructure was built during the preparation period for the successful hosting of the PyeongChang Olympics, as shown in Table 7.3. The first component of construction was the high-speed rail between Wonju and Gangneung. The newly completed line allowed trains to travel from Inchon Airport to PyeongChang in approximatley 75 minutes. It also made it possible to travel in 2 hours from Inchon Airport to Gangneung, which is another city hosting the Olympics. The Seoul-Yangyang Expressway, which had been in operation from Seoul to Donghongcheon, opened in June 2017 with the completion of the construction work between Donghongcheon and Yangyang. The entire section was fully opened in June 2017, about nine years after construction began. The second Yeongdong Expressway also opened in December 2017, five years after it began construction. In addition, national roads and provincial roads near the Olympic Games were constructed to improve the accessibility of Gangwon Province.

Table 7.3 The Main Transportation Infrastructure of the PyeongChang Olympics

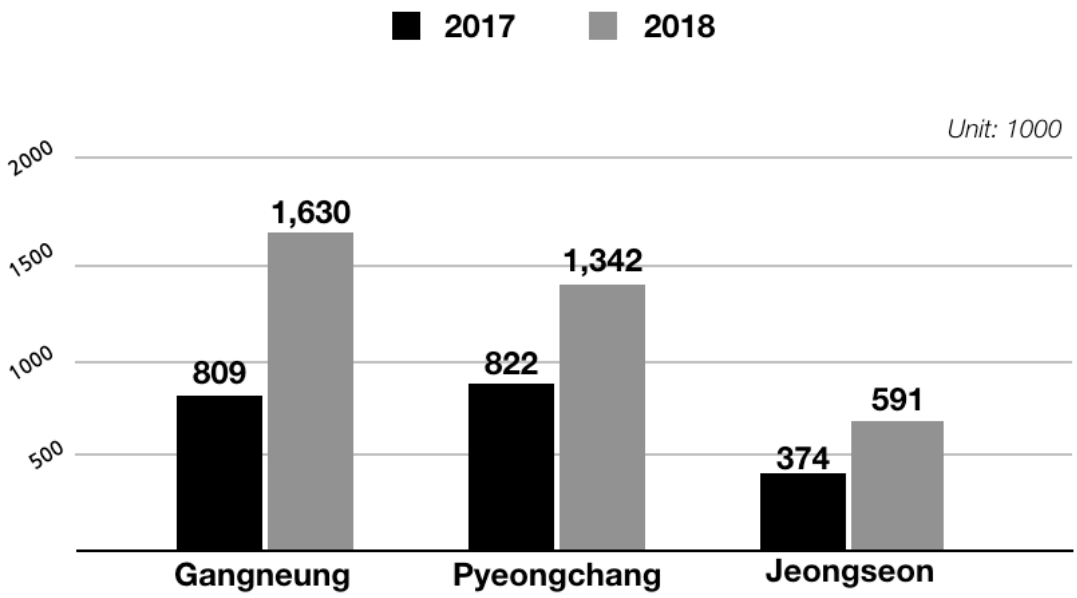
Type	Title	Outline	Expenditure (hundred million KRW)	Note
Airport	Add boarding gate	1 Boarding gate	7	-
Railway	High-speed Railway Wonju and Gangneung	L = 120.7km	37,846	Korea Rail Network Authority
Expressway	Expressway between Seoul and Yangyang County	L=71.7km	24,187	Korea Expressway Corporation
	Improve existing	Gangneung, Daegwallyeong,	312	

	expressway interchange	Jinbu, Myeonon		
	Second Yeongdong Expressway	L=56.95km	15,397	Wonju Regional Construction and Management Administration
General national road	A6 Dunnae - Ganpyeong	L=45.2km	3,943	
	A59 Mapyeong - Najeon	L=18.1km	1,535	
Local road for Olympic venues	16 roads	L=56.02km	5,534	Gangwon Province, PyeongChang, Gangneung

(Source: POCOG, 2016:427-428)

According to Kim (2019b), 83.1 percent of Gangwon residents responded positively to the question of whether the PyeongChang Olympics had improved transportation infrastructure in Gangwon Province. Consequently, the number of visitors to the Olympic host cities increased remarkably during the Olympics. As shown below in Figure 7.1, the number of visitors to Olympic venues averaged 3.563 million, up about 77.7 percent from the same period a year earlier. Compared to 2017, the number of visitors to Gangneung increased by 101.5 percent, with 63.3 percent increase to PyeongChang and 57.9 percent increase to Jeongseon. Moreover, the length of stay also increased by an average of about 22.7 percent compared to the same period in the previous year (Ministry of Culture & Sports and Tourism and Korea Tourism Organization, 2018).

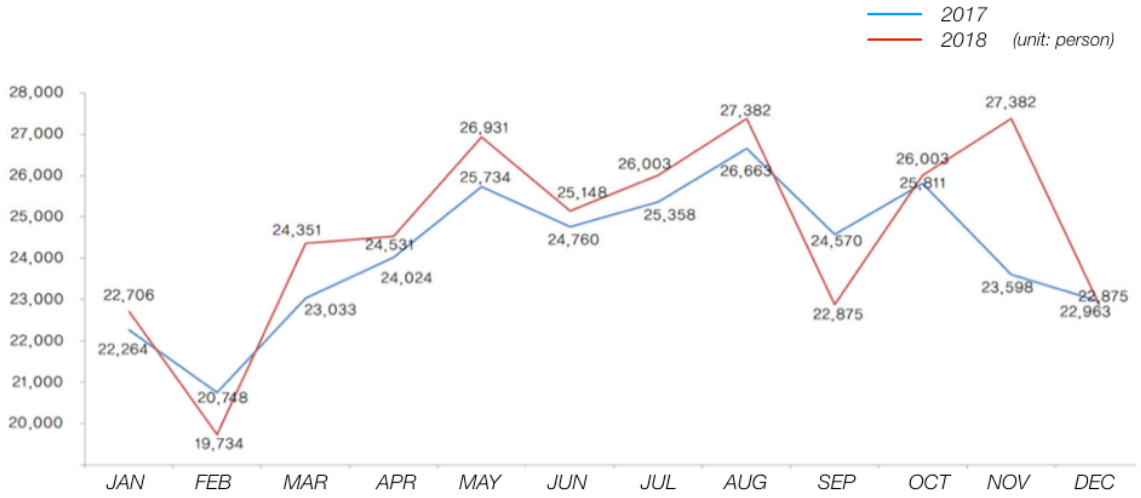
Figure 7.1 The Number of Visitors during the PyeongChang Games



(Source: Ministry of Culture & Sports and Tourism and Korea Tourism Organization, 2018)

This rate of tourism remained steady during 2018 when the Olympics were held. The improved accessibility in the Seoul metropolitan area indicates a steady increase in visitors to Gangwon Province. Figure 7.2 shows that the monthly number of highway users in Gangwon Province increased by an average of 2.2 percent compared to 2017. The on-year drop in highway use in February 2018 is seen as a decline due to control of highway use during the Winter Olympics. The new highway between Yangyang and Seoul, and Samcheok and Sokcho recorded an average increase of 15.43 percent and 40.4 percent year-on-year (Korea Expressway Corporation, 2019). In addition, an average of 344,344 people used the high-speed train between Gangneung, central to the Olympic transportation infrastructure, even after the closing of the Olympics. In addition, the number of visitors to Yangyang, located near the Olympic host city, rose by two from 2018 to 773,340 (RIG, 2019).

Figure 7.2 Monthly Use of the Expressway in Gangwon



(Source: Statistic on Highway Traffic Volume, 2019)

The construction of this transportation infrastructure for the PyeongChang Olympics not only reduced the travel distance to Gangwon Province, but also served as an opportunity to reduce the psychological distance to Gangwon Province. A Gangwon public official noted this as an economic legacy of the Olympics:

> The accessibility of Gangwon-do has improved greatly due to the construction of transportation infrastructure due to the hosting of the Olympic Games. I think there has been a psychological distance between Gangwon Province and Seoul that is longer than the geographical distance. With the Olympics, I think the psychological barrier to Gangwon Province has been removed (Interviewee 09, 2019).

As is clear, the hosting of the Olympics brought about the development of transportation in Gangwon Province. The number of people visiting Gangwon Province, as during the Olympics, has been on the rise.

7.2.1.2 Post-Games Use of Olympic Venues and Facilities

The key aspect of the post-Games use of Olympic venues is that the future use of Olympic venues is clearly defined from the bidding stage. Given the whole process of hosting Olympics takes ten years, including the invitation phase, there are practical challenges to deciding the use of Olympic venues in the bidding stage.

Table 7.4 PyeongChang Olympic Venues and its Post-Games Use

<table>
<tr><th>Name in Bid Book</th><th>Official Name</th><th>Post-Games Use / Ownership in Bid Book</th><th>Actual Post-Games Use / Ownership in Bid</th></tr>
<tr><td>N/A</td><td>PyeongChang Olympic Stadium</td><td>N/A</td><td>Demolished after the Olympics, except for some parts (Medal Plaza)</td></tr>
<tr><td>Alpensia Sliding Centre</td><td>Alpensia Sliding Centre</td><td>Venue and Leisure Facility (Off-season) / Gangwon Province</td><td>Undecided</td></tr>
<tr><td>Alpensia Biathlon Centre</td><td>Alpensia Biathlon Centre</td><td>Venue / Gangwon Province</td><td rowspan="3">Hosting winter sports competitions
Training facility for national and provincial sports teams
Public sports facility
Tourism and event facility

Gangwon Development Corporation</td></tr>
<tr><td>Alpensia Nordic Centre</td><td>Alpensia Cross-Country Centre</td><td>Venue / Gangwon Province</td></tr>
<tr><td>Alpensia Jumping Park</td><td>Alpensia Ski Jumping Centre</td><td>Venue / Gangwon Province</td></tr>
<tr><td>YongPyong Alpine Venue</td><td>YongPyong Alpine Centre</td><td>Ski Resort / YongPyong Resort</td><td>Ski Resort / YongPyong Resort</td></tr>
<tr><td>Jungbong Alpine Venue</td><td>Jeongseon Alpine Centre</td><td>Ski Resort / Gangwon Province</td><td>Decided to demolish this venue and restore to the original natural state</td></tr>
<tr><td>Bokwang Freestyle</td><td>Bokwang Snow Park</td><td>Ski Resort / Bokwang Phoenix</td><td>Ski Resort / Bokwang Phoenix Park</td></tr>
</table>

Venue		Park	
Bokwang Snowboard Venue			
Union Hockey Centre	Gangneung Hockey Centre	Move to Wonju / GangNeung City	Undecided
Youngdong College Gymnasium	Kwandong Hockey Centre	Public Sports Facility / GangNeung City	Multi-purpose sports facility and Lecture room / Catholic Kwandong University
Science Oval	Gyeongpo Oval	Exhibition Hall and Ice Rink / GangNeung City	Undecided
Gyeongpo Ice Hall	Gangneung Ice Arena	Multi-Purpose Hall and Public Ice Rink (lower level) / GangNeung City	Public sports facility / Gangneung City
GangNeung Indoor Ice Rink	Gangneung Curling Centre	Public Sports Facility and Public Ice Rink (lower level) / GangNeung City	Multi-purpose sports facility Sports and welfare facility for the disabled / Gangneung City

(Source: Interviewee 02, 2019)

Table 7.4 describes the post-Games use of the Olympic Stadiums and the PyeongChang Olympics Stadium. Firstly, for the PyeongChang Olympic Stadium, the location was not decided concretely at the Olympic bid stage. Once the location of the Olympic Stadium was decided, it was difficult to find a way to utilize the building after the Games. For this reason, the Stadium was constructed as a temporary architecture in anticipation of the large amount of taxes that would have to be spent on its maintenance and with the

exception of a few parts was demolished at the end of the Olympic Games.

For a total of 12 PyeongChang Olympic Stadiums, a post-Games use was determined, with the exception of three stadiums. Firstly, Yongpyong Alpine Centre and Bokwang Snow Park, owned by a private enterprise, are under the control of the companies concerned. Also the Alpensia Nordic Centre, Biathlon Centre and Ski Jumping Centre are under the management of the Gangwon Development Corporation. Gangneung Ice Arena and Curling Centre, located in Gangneung Coastal Cluster, are managed by the Gangneung city, while Kwandong Hockey Centre, located inside Catholic Kwandong University, is being used as a sports facility for the university concerned. As of 2019, the post-Games use of the three venues: 1) Alpensia Sliding Centre, 2) Gangneung Hockey Centre and 3) Gyeongpo Oval has not been decided, unlike what was originally stated in the PyeongChang bid file. In addition, it was decided to close the Jeongseon Alpine Centre and to restore the site to its original nature through consultations between the central government and Gangwon Province during the preparation period for the Olympics. However, there has been a conflict between the central government and the local governments over the post-Games use of the Alpine Centre.

7.2.2 Evaluation of the Implementation of the Economic Legacy

The twin aims of PyeongChang's economic legacy are to promote Gangwon Province as a winter sports hub in Asia and a key logistic hub in Northeast Asia. To realize these aims, the hosting of the PyeongChang Olympics was specifically used to create a transportation infrastructure and winter sports stadiums as its economic legacy. The PyeongChang Olympics recognized the importance of sustainability in order to leave a sustainable economic legacy. Thus they set up a post-use plan and strategy to host an economic Olympics. Interviewees identified several obstacles to the economic legacy of the PyeongChang Winter Games from the sustainability viewpoint. In this section, I will look at the practical obstacles to leaving a sustainable economic legacy for the PyeongChang Olympics.

First, the post-Games use of the PyeongChang Olympic venues was not implemented as

planned at the bidding stage. Design changes to the PyeongChang Olympic venues occurred frequently during the preparation period of the Games. In the bid file, the POCOG set a plan to build 6 new Olympic venues and reuse 7 existing venues. However, there was no mention of the PyeongChang Olympic Stadium, where the opening and closing ceremonies were performed, in its bid file. The future of the PyeongChang Olympic Stadium was controversial, given that the opening and closing ceremonies were events that were broadcast worldwide, so that the PyeongChang Olympic Stadium became a symbolic venue, representing the PyeongChang Winter Games. At one stage, the intention was to hold the opening and closing ceremonies at the Alpensia Ski Jumping Centre, but this was criticized by the IOC for its poor accessibility in the first bid. As one interviewee stated:

> It was not impossible to hold the opening and closing ceremonies at Alpensia Ski Jumping Centre, but it was difficult in terms of geography or structure. With a variety of problems, the IOC Evaluation Commission pointed out the problems from the first and second bid and suggested that a number of complementary measures are needed. In response, we decided that we would come up with an alternative plan to host the Olympics most effectively after confirmation as the host city. This was possible because of the trust of the IOC Evaluation Commission formed over the decade of bidding (Interviewee 02, 2019).

As advised by the IOC Evaluation Commission, it was decided to build the Olympic Stadium at Hoenggye Training Centre, which is two kilometres from Alpensia Ski Jumping Centre. This site was originally planned for the Medal Plaza. The Olympic Stadium was only built as a temporary and 'pop-up' facility and most of the facilities were removed after the Olympics, except for the Medal Plaza. The Olympic Stadium was used for only four days for the opening and closing ceremonies of the PyeongChang Olympics and Paralympics. Considering the 119.3 billion Won budget spent on the Olympic Stadium (from the purchase of the site to the demolition cost), the daily usage fee was approximately 29.5 billion Won (Interviewee 02, 2019).

In the case of Gangneung Hockey Centre, located in the Gangneung Coastal Cluster, the post-Games use of the venue has not been decided after several changes. On the bid file, Gangneung Hockey Centre was intended to be a removable structure and moved to Wonju

after the closing of the Olympics. One of the interviewees, who was involved in all three bids to host the PyeongChang Olympics, said that:

> At the time of PyeongChang's first bid, the hockey centre was supposed to be built in Wonju, but the plan was modified to build the hockey stadium in Gangneung to host the compact Olympics. However, the Korea Ice Hockey Association made a proposal about the hockey stadium in Wonju as an Olympic legacy. After discussion, the hockey centre was built in Gangneung as planned, but was to be reduced to around 3,000 seats after the Olympics to move to Halla University in Wonju to be used as a venue for ice hockey. Wonju is one of the transport hubs and also had ice hockey teams in Halla University and Gangwon Land. Therefore, we decided that the move to Wonju was appropriate for the post-use of the ice hockey stadium (Interviewee, 01).

However, the Gangneung Hockey Centre was unable to find proper utilization after the Olympics and it was decided to remove it in June 2014 under an agreement between the Ministry of Culture, Sports and Tourism, Gangwon Province and the POCOG. However, after two years, the PyeongChang Olympic Support Committee decided that Gangneung Hockey Centre, which was designed to be moved at the time of construction, should remain permanently at the current location in 2016. After that, in 2016, Daemyung Group, which owns the ice hockey team, decided to use Gangneung Hockey Centre as the home stadium for their own ice hockey team for 5 years after the closing of the Olympics. However, Daemyung Group gave up the operation due to its negative image of being involved in a political scandal and the operational cost of 10 billion Won for five years (Park et al., 2017).

Gangneung Oval was also originally planned to be used as a permanent ice rink under the management of Gangneung local government. However, the demolition and maintenance of the Olympic venue were reversed twice and it was finally earmarked to remain like the Gangneung Hockey Centre. The sliding centre also fails to use the original post-utilization plan and does not have a managing body. After the PyeongChang Olympic Foundation was established, Gangneung Hockey Stadium, Gangneung Oval and Alpensia Sliding Centre were to be managed by the foundation, but questions still remain about their usability and economic feasibility (Interviewee 04, 2019).

It is clear that the reason these Olympic venues are not being used as planned is because there were no concrete plans from the bid stage. More specifically, the most controversial part was to clarify where the responsibility for the cost of managing the PyeongChang legacy lies. This is because there are no clear criteria for the post-management of the Olympic legacy with central and local governments: Gangwon provinces.

Second, the lack of communication among the Olympic stakeholders is a factor that impedes the delivery of the PyeongChang Olympics' sustainable economic legacy. Following the announcement of Agenda 2020, the PyeongChang Olympics had the potential to become the first Olympic venue to be no longer intertwined with the 'One-city Principle'. In line with this perspective, there were discussions on the sharing of venue-locations with other cities from late 2014. The characteristics of the Winter Games has led to high construction costs for Olympic venues while the demand for winter sports is quite low in South Korea.

As an alternative, the IOC proposed a venue-sharing plan with other countries for the PyeongChang Olympics from the sustainability standpoint. The main topic of the proposal was the venue-sharing of the sliding centre for reasons of geography and sustainability. Gunilla Lindberg, who is an IOC executive board member and a chair of the Coordination Commission for the PyeongChang Olympics, stated that

> It's their decision in the end … But at least we're going to help them identify where the sliding centres are, where the options are. In the end, they stay in PyeongChang or they take this great opportunity. (Korea Herald, 2014).

As a result, Asia's only sliding centre built during the 1998 Nagano Winter Olympics was strongly suggested as an alternative. Another alternative was to hold ice skating events in Seoul, the capital of South Korea, to reduce costs through the reuse of existing facilities. It was argued that given the densely populated region of Seoul, the post-Games use of the stadiums could be easily solved. According to Yoon (2015), the budget saving from hosting three ice events in Seoul was 302 billion Won, and if all five ice events were held

in Seoul and Gyeonggi Province, the total budget saved could be 479 billion Won.

However, Park Geun-hye, who was President of South Korea at that time, stated that it is meaningless to discuss splitting the events of the PyeongChang 2018 Winter Games across a range of locations because work on the venues is already under way (Jun, 2014). In fact, construction of the sliding centre for the PyeongChang Olympics began in October 2013. Construction of the three ice skating venues, located in Gangneung also began in June 2014 (POCOG, 2017b). Given the site purchase and architectural design period before the construction of the Olympic venues, it was too late to consider sharing the PyeongChang Olympics with Japan or other cities.

In addition, the lack of communication among stakeholders has also increased additional spending on the construction of Olympic facilities, which was not in the PyeongChang bid file. The largest part of the Olympic costs is the construction of Olympic venues and facilities except for non-sports related capital costs. Since these parts of the construction are paid in full by taxes (national tax 75 percent, local tax 25 percent), completing the construction as planned is a way to increase the economic sustainability of the Olympics. A member who participated in the Olympics as a public official in Gangwon Province noted:

> I think the PyeongChang bid file is a promise between the host country and the IOC. But the Olympics aren't just about the IOC and the host country. Many International Sports Federations (IFs) participated in the Olympics to make sure that the facilities in the Olympic venue meet international standards in the best condition. That's because they need to be inspected and passed by the IFs on completion. There are many requirements to meet international standards, but we should comply with the IFs' requests. Of course, if we build an Olympic venue without the IFs' approval, and then we find a structural defect, then of course we have to correct it. However, in the case of some stadiums, structural faults were discovered and asked to be corrected several times, even though the IFs participated in the construction process. This is a part that doesn't exist in the bid files, so it caused the rise in the cost of the PyeongChang Olympics (Interviewee 09, 2019).

One of the interviewees, who worked as Vice President of the Games Operations of

POCOG, also emphasized that various consultations should take place from the Olympic bid stage as below:

> Gangwon-do probably had a lot of complaints. They had to build the facilities, but they're not sports experts. Although Gangwon worked with the IFs from the design stage, some IFs required modifications from the beginning of construction. However, some IFs required modifications at the end. I don't think it's the IFs' fault. IFs make up the organization that runs the Games, and of course they want the stadium to be perfectly built to the standard. Even though Gangwon built the Olympic venues according to the IFs' standards, water leaked from the PyeongChang hockey rink and the curling sheet was not flat… To prevent this from happening, it's better to cooperate with the sports experts or IFs from the stage of the Olympic bid for advice. That way, we can build them economically and efficiently (Interviewee 5, 2019).

The construction of various Olympic venues is not limited to POCOG or Gangwon as a host venue. However, it is a comprehensive project that reflects the opinions and requirements of various stakeholders. Therefore, to achieve the optimized construction promotion system requires active communication between all stakeholders, including the IOC, IFs, host cities and organizing committees. In addition, sports experts, venue managers, sports managers, functional area members, stadium experts, host city officials, etc. must form an organizational cooperative system to leave a sustainable economic legacy.

In the bidding process for the PyeongChang Olympics, communication was lacking between the central government and Gangwon Province. As Gangwon Province became the main body to push for the Olympics, there was a lack of communication among stakeholders in the process of setting up advance plans in bid files and the financial guarantee of the central government.

> The advance planning was the most important thing in the bid file. After the central government and Gangwon Province had enough discussion, it had to be approved by the central government. They should have gone through enough discussion. PyeongChang Olympics was a bit weak in that. Gangwon-do planned the Olympics from the very beginning, and the central government agreed to guarantee to IOC it without going over the details. Well, hosting the Olympics was the most urgent thing at that time

(Interviewee 05, 2019).

Finally, there have been conflicts between the central and local governments over the funding. The cost of hosting the Olympics was astronomical and it was practically impossible for Gangwon Province to pay the entire cost. Therefore, the extent to which financial support from the central government could be provided across all parts of the PyeongChang Olympics has become the biggest issue of the PyeongChang Olympics.

In the case of sports-related capital costs such as the construction cost for Olympics venues and support facilities, it was decided that the construction cost was to be subsidized by central government by at least 75 percent through the Special Act on Support for the Winter Olympics and the remaining 25 percent by Gangwon Province as stated in Article 35 of the law (National Assembly of South Korea, 2014). Basically, the IOC demands a firm financial guarantee from the national government when submitting a bid file. The bid files for hosting the 2010 and 2014 Winter Olympics meant that Gangwon Province would provide 50 percent of the financial guarantees and the central government would support 50 percent of the games (POBICO, 2006). However, in PyeongChang's third bid, the phrase relating to the financial guarantee of central government was replaced with a vague expression 'The National Government has assured its role as the ultimate guarantor in the event of any financial shortfalls incurred by POCOG' (POBICO, 2010b:106). After the decision to host the Olympics, the central government and Gangwon Province remained in complete disagreement on the ratio of financial support for the Olympics. The central government claimed 30 percent of national subsidy, citing the 2014 Incheon Asian Games held in South Korea just before the PyeongChang Olympics. However, it was practically impossible for Gangwon Province to pay 70 percent of the estimated budget of 700 billion Won in 2011. The interviewee, who worked as the first chairman of the POCOG, said

> We had a hard time getting ready for the Olympics because the state subsidy rate was not decided. In fact, the PyeongChang Olympics were built with lots of facilities such as ski jumping through the first and second bids, so there wasn't much money to spend on the Olympics. In the case of the 2014 Incheon Asian Games, it cost 500 billion Won to build just one main stadium. … it's quite a contradiction to provide 30 percent from

> national subsidies for PyeongChang Olympics just like any other international events… In the end, the special law allowed the government to sharply increase its financial support from 30 percent to 75 percent, reducing the financial burden on Gangwon Province (Interviewee 01, 2019).

The conflict between the central government and Gangwon Province continued even after the closing of the PyeongChang Olympics. The central government and Gangwon Province also differed on the cost of using the remaining Olympic venues as an economic legacy after the closing of the Olympics. The post-Games use of the three Olympic venues (Alpensia Sliding Centre, Gangneung Hockey Centre and Gyeongpo Oval) is also a controversial issue between central government and Gangwon Province. As one interviewee from Gangwon Province noted:

> I think the central government should take care of the Olympic venues. In fact, there was no clear understanding that the local government should manage the venues ... The President said that the central government would take some responsibility for the costs of post-use of the stadium in order to reduce the financial burden of Gangwon Province. However, the central government is sitting on its hands now…Anyway, the Olympic venues were built with 75 percent from national subsidy and 25 percent from the Gangwon Province budget, then rented to the POCOG and returned to the Gangwon facility at the end of the Olympics. If the central government does not fund the post-use of the venues, Gangwon has no choice but to take care of everything (Interviewee 02, 2019).

As such, there were no clear legacy management plans even after the Olympics ended. The lack of such legacy management plans and the officials' continued passing of the matter between central and local governments have tarnished the meaning of the Olympic legacy. According to KDI (2019), the total operating cost of the three Olympic venues, whose use has still not been decided, is estimated to reach 10.2 billion KRW a year. As Gangwon proposed the post-Olympics use of the facilities to the central government, it expected a deficit of 7.4 billion KRW per year, with only 2.8 billion KRW available from hosting the national team training ground and various competitions.

As a result, these factors that impede the sustainable economic legacy of the PyeongChang Olympics have consequently brought financial burdens to Gangwon

Province. According to Gangwon Provincial Office (2018), Gangwon Province incurred debts ranging from 860.5 billion KRW to 991.2 billion KRW during the preparation period for the Olympics, and issued local bonds exceeding the amount of local bonds issued from 2013 to 2017. Given the cost of restoring Mt. Gariwang and managing the operation of the Olympic facilities, the issuance of additional local bonds by Gangwon Province is expected as additional funding is needed.

7.2.3 The PyeongChang 2018 Legacy Foundation

Officially, the PyeongChang Olympics generated 61.9 billion KRW in revenue. With this direct impact of the PyeongChang Olympics, South Korea established the PyeongChang 2018 Legacy Foundation on May 2019. The importance of establishing such a foundation has been proven through the success of the Korea Sports Promotion Foundation, which was established in 1989 with surplus money from the Seoul Olympics. In this regard, members who participated in both the Seoul Olympics and the PyeongChang Olympics said:

> The Seoul Olympics left a great legacy in Korea. I think the most effective legacy of the Seoul Olympics was the Korea Sports Promotion Foundation established under the strong support of the central government. At that time, there was a surplus of 350 billion Won from the Seoul Olympics. The Korea Sports Promotion Foundation, which was established with the surplus, has been making a significant contribution to the development of sports in the Republic of Korea. It plays an important role not only in the development of sports in Korea, but also in the promotion of sports for all the people of Korea (Interviewee 05, 2019).

Through this precedent, the role of the PyeongChang 2018 Legacy Foundation established after the closing of the PyeongChang Olympics was also anticipated in many respects. In 1988 when the Olympic Games were held in Seoul, the concept of the Olympics legacy was not firmly established, and the distribution of Olympic proceeds was also different. As stated in the Host City Contract for PyeongChang signed by IOC, Gangwon Province and the National Olympic Committee (NOC), the total profit was allocated as 60 percent to POCOG, 20 percent to IOC and 20 percent to the NOC. The IOC donated its revenue to POCOG for the development of sports in Korea (Interviewee

04, 2019).

The main role of the PyeongChang 2018 Legacy Foundation is to promote the development of winter sports in the Republic of Korea through the management of the legacy of the PyeongChang Olympics. The first project of the foundation is to support the hosting of winter sports competitions at home and abroad and run various winter sports participation programmes. It will also push for inter-Korean sports exchange projects to inherit the 'peace' between the two Koreas, the biggest legacy of the PyeongChang Olympics. As a second project, the foundation plans to provide support for three of the 12 venues at the PyeongChang Olympic Stadium, whose post-Olympics use management has yet to be determined.

> The establishment of the PyeongChang 2018 Legacy Foundation was already a matter of mutual consultation with IOC President Bach. Of course, the central government was interested in establishing the foundation, but there was a difference between the central and local governments in managing the legacy of the PyeongChang Olympics. From the perspective of the local government and the central government, the most important thing is that there is an organization responsible for the legacy of the PyeongChang Olympics (Interviewee 04, 2019).

It is clear that the Korea Sports Promotion Foundation, a legacy of the Seoul Olympics, has greatly affected the development of sports in the Republic of Korea. The presence of the PyeongChang Legacy Foundation is crucial in that it not only has a positive impact on the development of winter sports, but it also enables management of various types and the intangible legacy created at the PyeongChang Olympics from a sustainability perspective.

7.3 Implementation of PyeongChang's Social Legacy Plan

As stated in the previous section, Gangwon sought to host the PyeongChang Winter Games as a catalyst for 1) the improvement of Gangwon residents' regional identity, 2) the development of winter sports in South Korea and 3) inter-Korean relations.

7.3.1 Actual Outcomes of the Social Legacy from PyeongChang Olympics

7.3.1.1 Community Participation in PyeongChang Olympics

PyeongChang Olympics was an opportunity for the Gangwon community to enhance regional identity. Through this, Gangwon also sought to promote the sense of community among Gangwon residents and create a vibrant community. In fact, there were no international events held in Gangwon Province that Gangwon people could participate in themselves. However, through the mega events that received global attention like the Olympics, Gangwon Province wanted to encourage Gangwon residents to participate actively in the running of the Games to promote their self-esteem and regional identity and let the entire world know their capabilities. A total of 96,635 people contributed in 14 different fields to ensure a successful Olympic Games as stated below in Table 7.5. Given the population of the host cities (296,225), the number of volunteers in Gangwon Province is very high (49,796), indicating the Gangwon residents' high interest in the Olympics.

Table 7.5 The Details of Public Participants in the PyeongChang Olympics

Subject		Task	Headcount
Gangwon Province	Administrative Personnel	Administrative support and Olympic preparation	22,000
	Supporters	Cheering games	17,074
	Volunteer	Guide, Interpretation, Promotion etc.	1,708
	Medical Personnel	Medical aid	149
	Snow-removing	Snow removal operation on road	714
	City environment beautification	Toilet and street cleanliness	350

	Broadcast / Media	MPC, IBC non-registered national and international journalists	1,000
	Culture / Art	Performance	2,801
	Torch relay	Olympic torch relay	4,000
Dongsamo Corp.	A group for winter sports lovers	Voluntary participation in games and promotion of Olympics	21,000
Fire Department	Firefighting	Fire safety precaution	3,187
	A volunteer fire department	Cheering games	4,000
Police		Security	5,160
Army		Game operation and	9,497
POCOG	Volunteer	Guide, Interpretation etc.	3,995
Total number of participants			96,635

(Source: Interviewee 09, 2019)

Furthermore, through the hosting of the PyeongChang Olympics, Gangwon's pride and the city's competitive status have increased. According to the study, more than half of the respondents (55.8%) said they were proud to be Gangwon citizens because of the PyeongChang Olympics (Kim, 2019b).

7.3.1.2 Development of Winter Sports in Korea

As a result, South Korea had the best Winter Olympics ever at the PyeongChang Olympics. South Korea has set a new record for winning the most medals ever with a total of 17 medals, with five golds, eight silvers and four bronzes. The most important thing to notice is that Korea has won a variety of medals in disciplines that have never been in medal contention. As shown in Table 7.6, in addition to its image as a traditional skating powerhouse, the Republic of Korea has shown outstanding performance in winter sports where Asian countries have been weaker.

Table 7.6 The List of the First Winter Olympic Medals of South Korea in PyeongChang

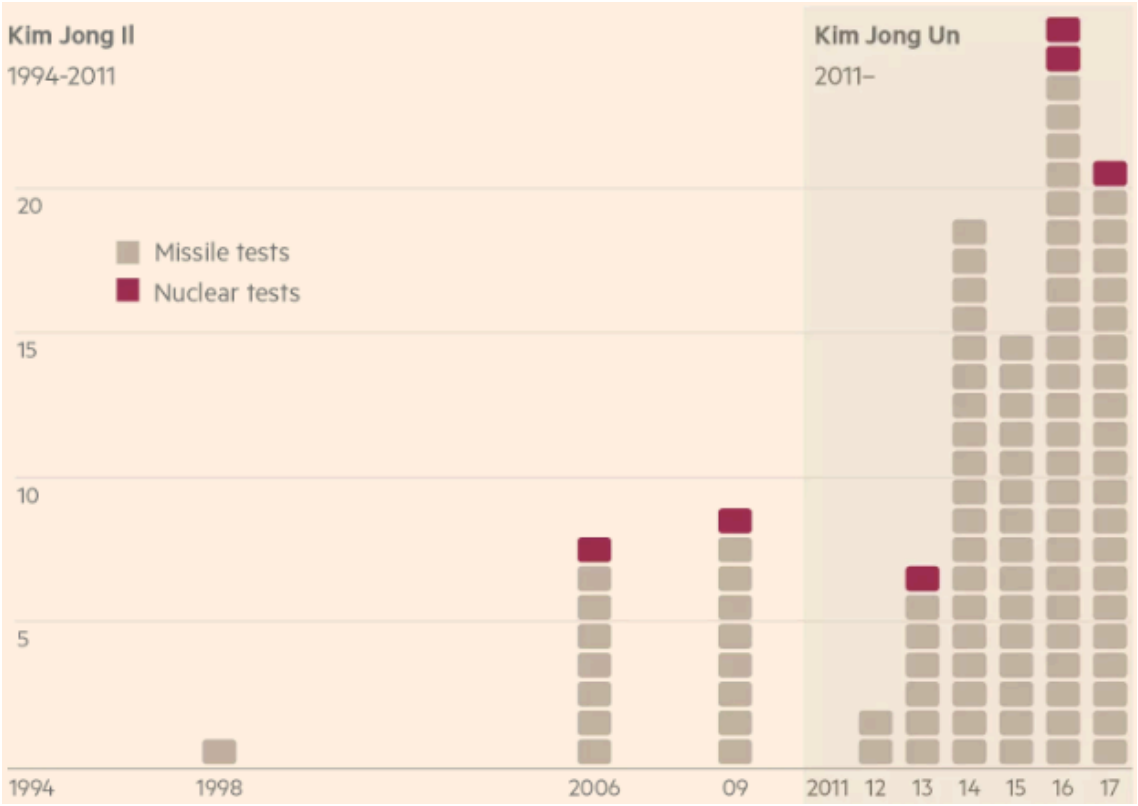
Disciplines	Type	Note
Skeleton for men	Gold	The first gold medal in Winter Olympics' history for South Korea other than for skating
Curling for women	Silver	The Asian nation's first advance to the finals
Snowboarding Men's Parallel giant slalom	Silver	The first South Korean Olympic medal on snow
Bobsleigh – Four-man	silver	The first Asian Olympics medal on Bobsleigh

(Source: IOC 2019)

7.3.1.3 Peace Olympics

North Korea's participation in the PyeongChang Winter Games was the biggest achievement as a social legacy of the Olympics. Since 2011, when the bid for the PyeongChang Olympics was finalized and Kim Jong-un succeeded after Kim Jong-il's death, there has been a serious deterioration in relations between South and North Korea due to the continuous nuclear weapons testing of North Korea: a third test in 2013, fourth and fifth tests in 2016 and sixth test in 2017 and many missile tests as described below in Figure 7.3. To mend such strained ties with North Korea, the PyeongChang bid sought for PyeongChang Olympics to become a catalyst to bring inter-Korean peace.

Figure 7.3 The History of North Korea's Missile and Nuclear Tests



(Source:Harris et al., 2017:online)

In order to bring North Korea to the PyeongChang Winter Games, South Korea and Gangwon Province made efforts in various ways. Moon Jae-in, who was a presidential candidate at that time, promised that the PyeongChang Olympics will be hosted as 'peace Olympics' to improve the relationship between the South and the North (Kim and Kim, 2017). Even after his election as president, he said he would work at government level to make the PyeongChang Olympics a peace Olympics through his North Korea policy. The stance on North Korea had to do with the North Korea policy that Moon Jae-in's government established. The first priority of the administration's North Korea policy was a peaceful Korean Peninsula without nuclear weapons to stabilize the unstable security situation on the Korean Peninsula and to solve the North Korean nuclear issue (Cho, 2017). Moon also cited the PyeongChang Olympics as a breakthrough in improving inter-Korean relations in the speech at the Körber Foundation in Berlin as stated below:

> … Second, let us make the PyeongChang Winter Olympics an 'Olympics

> of Peace' with the participation of the North …. My Government would like to suggest to North Korea to utilize this series of precious events held in Asia as an opportunity for building peace on the Korean Peninsula, in Northeast Asia, and the world. Sports have the power of connecting one heart to another. I look forward to opening together a new era of peace on the Korean Peninsula while applauding together with the leaders of the world. As the IOC has promised its cooperation on the participation of North Korea in the PyeongChang Winter Olympics, I look forward to North Korea's active and positive response (Moon, 2017).

The president of South Korea constantly emphasized North Korea's participation in the PyeongChang Winter Games at the 72nd Session of the United Nations General Assembly and meeting with Thomas Bach, president of IOC. In addition, Gangwon Province asked North Korea to participate in their Olympics several times through various channels (Interviewee 3, 2019). In response to such requests from South Korea, Kim Jong-un, who is the third Supreme Leader of North Korea, following the elder Kim's death, stated his positive stance to attending the PyeongChang Olympics in his 2018 New Year's speech. Since then, full-fledged negotiations were made on North Korea's participation in the PyeongChang Olympics, as the North has responded to the South's request for high-level talks. An interviewee, who was one of the members of the high-level talks attended by a total of five South Korean delegates, said:

> After Kim Jong-un's New Year's speech, the North's participation in the PyeongChang Olympics was agreed within 20 days. After the first high-level talks between South and North Korea, held near the inter-Korean border on 8th January, North Korea's PyeongChang Olympics participation was officially announced by Thomas Bach through a meeting attended by South Korea's Minister of Culture, Sports and Tourism and North Korea's Sports Minister … Long before, the POCOG had made all of its plans based on assumptions involving North Korea. I thought the key to the success of the PyeongChang Games was North Korea's participation, and the POCOG's strategy was to hold the games as a peace Olympics with the participation of the North (Interviewee 3, 2019).

North Korea sent a large delegation to the PyeongChang Winter Games in various fields. There were a total of 429 North Korean delegates: 22 high-ranking delegates, 46 athletes (22 athletes and 24 officials, etc.), 137 members of the art troupe, 31 members of the taekwondo demonstration team (28 demonstrators and 3 executives), 21 reporters, 229

members of the cheering squad, 2 officials from the IOC, 4 officials from the National Olympic Committee (Ministry of Unification, 2018).

7.3.2 Evaluation of the Implementation of the Social Legacy

The hosting of the PyeongChang Olympics delivered a social legacy to the host region and the country. In this section, I will explore how the PyeongChang Olympics, in terms of sustainability, have worked to make the social legacy a sustainable legacy.

7.3.2.1 Local Community and Human Infrastructure

It is clear that the human infrastructure created by this participation in the Olympics is the social legacy of the PyeongChang Olympics. The Olympic experience of Gangwon residents from hosting the PyeongChang Olympics remains an important human infrastructure that can also contribute to the development of winter sports in South Korea beyond Gangwon Province. An interviewee, who worked both in the Olympics Games in Seoul in 1988 and PyeongChang in 2018, stated:

> After all, every part of the Olympics is run by a person. I think the people who worked at the PyeongChang Olympics will be important human resources for Korea. There are an average of about 2,000 people working on an Olympic venue in PyeongChang, including volunteers, ticketing staff and experts. These people are the human infrastructure of the Republic of Korea and can be fully utilized for other future events in Korea. In fact, my colleagues who worked with me at the 1988 Seoul Olympics, became executives at the International Sports Federation and led the domestic sports industry. I think it could be an opportunity for Korea to develop winter sports through the human infrastructure of the PyeongChang Olympics (Interviewee 05, 2019).

As a strategic approach of Gangwon Province, the PyeongChang Olympics provided an increase in the number of volunteering opportunities to promote a sense of community and regional identity among the Gangwon people. A Gangwon official who worked with POCOG, said:

> Of course, the Olympics are the best sporting event in the world where the

> best athletes compete. However, the Olympics cannot be hosted successfully without the local residents. PyeongChang received the support of 93 percent of Gangwon residents. I think the support from these local residents is the foundation for a successful Olympics. The PyeongChang Olympics would not have been successful if Gangwon people did not participate. Without the participation of local residents, the Olympics is just a competition for elite sports. The preparation for the Olympics is important, but the support of local residents is more important. Also, a successful Olympics can be held only when national consensus is prioritized and local participation is high, rather than government-led Olympics (Interviewee 09, 2019).

This was mentioned by another interviewee who works as a Gangwon official:

> Gangwon Province is planning to host the 2021 Asian Winter Games, and we would be ready to host them tomorrow! We have enough facility infrastructure and we also have well-trained human resources. Of the 22,000 public officials in Gangwon-do, everyone has experienced Olympic-related work once already (Interviewee 02, 2019).

Therefore, it is clear that the hosting of the PyeongChang Olympics created a strong human infrastructure in Gangwon Province. This can be said to have contributed greatly to the development of the local identity of Gangwon Province residents, whose pride as Gangwon citizens was the result of successfully hosting international events. Also, Gangwon residents' experience of participating in the PyeongChang Olympics directly and indirectly is expected to help them host future events in Gangwon Province.

7.3.2.2 Winter Sports Development

Two interviewees who have been deeply involved in Korean winter sports, both believed that the good performance of the South Korean national team resulted from a long-term strategy (Interviewee 04, 2019; Interviewee 05, 2019). South Korea's long-term strategy for winter sports development flourished in PyeongChang. There is no doubt that the strategy of developing winter sports is the driving force behind South Korea's success in the PyeongChang Olympics. As explained in the last chapter, Drive the Dream II was a strategy to strengthen the competitiveness of winter sports by spending a total of 550 billion KRW over seven years in time for hosting the 2018 PyeongChang Olympics. In

this strategy, the central government provided a budget for three years after its inception to promote the creation of winter sports teams in less popular sports such as skiing, biathlon and luge.

Table 7.7 The Number of Winter Sport Teams in South Korea (Sports Business Team and Local Sports Council Teams)

Sports	2012	2017
Skating (Speed and Short track)	10	12
Skiing (Alpine, Cross country, Ski jumping, Snowboard)	7	11
Biathlon	4	7
Curling	4	6
Bobsleigh / Skeleton / Luge	1	2
Ice hockey	2	5
Total	28	43

(Source: KISS 2012 and Gangwon Province Office 2016)

Table 7.7 shows that the number of sports teams in winter sports (business sports teams and local council sports teams) has increased noticeably since 2012 when a strategic approach to fostering unpopular winter sports began. As of 2017, there were 43 winter sports teams in total, 29 of which belong to local government as a local council sports team. In fact, given that most winter sports teams belong to local governments, as local sports council teams, this shows that the state led the development of winter sports. One of the main reasons is explained by the director of international co-operation at KOC, who stated that:

> The level of the host country's sports is very important to the success of the Olympics. The Olympic Games are sports events after all, so 50 percent of Olympic success depends on the sports level of the host country. The sports development of the host country is inseparable from the success of the Olympics because of the people's interest and support. When PyeongChang was chosen as the host city, the IOC knew that South Korea was only good at skating, especially short track speed skating. Gilbert Felli, IOC Olympic Games Executive Director, asked the KOC to submit a

> strategic plan on how it will achieve the development of winter sports in Korea in the PyeongChang Olympics within six years. So, the KOC prepared a strategy for 2 years also known as Drive the Dream II. As a result of this strategic and systematic plan, South Korea won Olympic medals in snowboarding, curling, bobsleigh and skeleton which we've never won a medal in before (Interviewee 05, 2019).

Also, the great facilities of the Olympic venues have contributed to the development of winter sports in South Korea. One member of the Korea Sport & Olympic Committee discussed this in detail:

> Actually, we didn't meet 100 percent of our initial goals. We were aiming for fourth place overall and 20 medals. In fact, we have found possibilities in events that we have not won a medal in so far. In skiing, Lee Sang-ho won a medal and Yoon was able to establish himself as the world's No. 1 as well as winning a gold medal. When did we win a medal in the bobsleigh competition? The reason why the athletes could score well was by setting up the facilities a year before the Olympics and training there. This gives the players a place to try to improve their performance (Interviewee 04, 2019).

7.3.2.3 Inter-Korean Relations

It is clear that the PyeongChang Olympics gave new impetus to inter-Korean relations in many respects. First, North Korea's participation has provided an opportunity to spread Olympism, the essential philosophy of the Olympic Games, which is a global sports festival. The Peace Olympics, in which the two Koreas participated together on the divided Korean Peninsula, practised world peace through sports as the ultimate goal of Olympism. Even before the Games were held, the safety of the games was questioned due to security concerns on the Korean Peninsula caused by North Korea's nuclear weapons development. Firstly, there were signs that France could boycott the PyeongChang Games. France's sports minister, Laura Flessel, said the French team may not participate in the PyeongChang Olympics if the security was not guaranteed due to inter-Korean tensions (Lough, 2017). In line with this perspective, some countries in Europe also expressed concern about the unstable situation on the Korean Peninsula. However, North Korea's participation in the Olympics was able to dispel such safety concerns on the Korean Peninsula and proceed with the Olympics of harmony without a

boycott due to safety concerns. Thomas Bach, who is president of the IOC, delivered the speech at the opening ceremony of the PyeongChang Olympics stating: 'Now in PyeongChang, the athletes from the teams of the Republic of Korea and the Democratic People's Republic of Korea, by marching together, send a powerful message of peace to the world' (Bach, 2018). The participation of the unified women's ice hockey team with members from South and North Korea can be said to be close to the world peace in sport that the IOC ultimately seeks.

Secondly, the North's participation was a catalyst for restoring severed inter-Korean relations. The inter-Korean communication channel, which had been cut off two years earlier, was restored to Panmunjom on 3rd January 2018. The fact that the inter-Korean communication channel, which had been suspended following the closure of the Kaesong Industrial Complex in North Korea, was reopened is full of meaning. In addition to the symbolism that the channel for inter-Korean dialogue is open all the time, the possibility of communication has prevented misunderstandings between the two countries, making it possible to prevent accidental military clashes between the two countries (Ministry of Unification, 2018).

Finally, the PyeongChang Olympics was an opportunity for South Korea to gain soft power. As introduced in chapter 3, hosting the 1988 Seoul Summer Olympic Games was a successful soft power strategy to discard its national image as one of the poorest countries with the memories of war and to celebrate its transformation to a successful country. South Korea's soft power strategy through the PyeongChang Olympics, the first of its kind in 30 years since the Seoul Olympics, has boosted the nation's image by easing inter-Korean relations. Moreover, the PyeongChang Winter Games also boosted international diplomacy through inter-Korean talks and strengthened the political support base in South Korea.

The PyeongChang Olympics, as part of South Korea's soft power strategy was an opportunity for South Korea to update South Korea's international image. The reconciliatory mood between the two Koreas projected the image of South Korea as a safer country. According to the Ministry of Unification (2018), the improvement in South

Korea's international image has helped stabilize the South Korean economy. In the wake of North Korea's military provocations in 2016 and 2017, interest rates, exchange rates, and credit default swap premiums rose and stock prices and foreign investment declined. The easing of inter-Korean tensions caused by the PyeongChang Olympics affected economic stability in 2018. In addition, international awareness of the PyeongChang Olympics and subsequent inter-Korean summits at Panmunjom was very positive as Figure 7.4 showed. According to the survey, more than 70 percent of the respondents said that both the PyeongChang Winter Olympics and the inter-Korean summit had positive effects, while 3.6 percent and 3.3 percent said they had negative effects, respectively. In the case of the inter-Korean summit, the external factors to be considered, such as political and diplomatic issues, are not as positive as the PyeongChang Olympics.

Figure 7.4 Foreigners' Perception on Major Korean Issues in 2018

(Source: Korean Culture and Information Service, 2019)

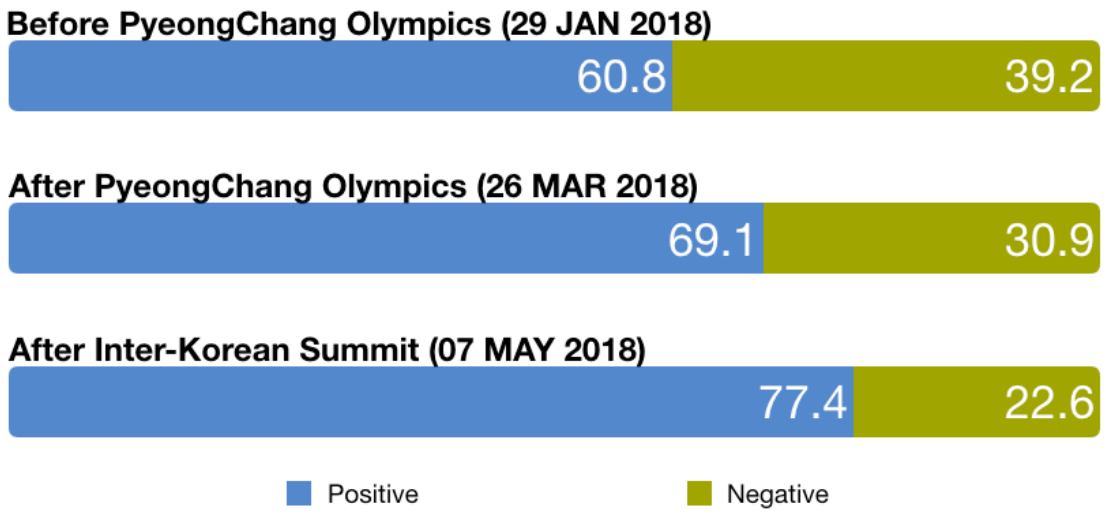
The continuing soft power of the PyeongChang Olympics has led to summit talks between North Korea and the United States after successfully leading three rounds of inter-Korean talks. Moreover, it built a diplomatic bridge between North Korea and the USA. In fact, there have been three inter-Korean summits and a North Korea–USA summit as a result of Olympic diplomacy through the PyeongChang Games. The diplomatic role played by South Korea, especially president Moon Jae-in's diplomatic ability, which led North Korea to the summit talks with the United States through three inter-Korean summits, has drawn global attention to South Korea as a negotiator. Campbell (2017) reported that

'Moon Jae-in aims to be the South Korean leader who can deal with Kim Jong Un'.

> In 2017, North Korea's nuclear test also worsened relations between the two Koreas, but relations with the United States were at their worst. Whereas North Korea called President Trump a 'psychopath', President Trump also warned North Korea that it would face 'fire and fury'. In 2017, South Korea, North Korea and the U.S. had such a bad relationship, but the PyeongChang Olympics held inter-Korean talks and the U.S.-North Korea talks. I think this is the biggest social legacy of the PyeongChang Olympics (Interviewee 03, 2019).

The hosting of the PyeongChang Olympics also played a role in strengthening the political base of the South Korean president nationally. The successful hosting of the Olympics boosted his approval rating to 69.1 percent, up 8.3 percent from 60.8 percent before the PyeongChang Winter Olympics as Figure 7. 5 shows. Moreover, his approval rating also soared to 77.4 percent after the inter-Korean summit.

Figure 7.5 President Moon Jae-in's Approval Rating



(Source: Realmeter, 2019:online)

7.4 Implementation of PyeongChang's Environmental Legacy Plan

PyeongChang Olympics pursued strict and systematic environmental management plans to leave behind the environmental legacy of the PyeongChang Olympics. In line with this

perspective, the POCOG, benchmarking the success of the previous eco-friendly Olympics Games, promised the most sustainable Olympics ever in terms of environmental standards, as well as meeting international levels of eco-friendly Olympic management. The first goal was to implement the O2 Plus Green Olympics through the thorough management of greenhouse gases generated by the PyeongChang Olympics. The second was to preserve the natural environment of Gangwon Province by minimizing environmental damage from the PyeongChang Olympics.

7.4.1 Actual Outcomes of the Environmental Legacy from the PyeongChang Olympics

7.4.1.1 Minimizing GHG emissions

The POCOG set an environmental goal, which is 'achieving O2 Plus Winter Games with Low-carbon and Resource Circulation' to reduce and offset GHG emissions caused by hosting the PyeongChang Winter Games (POCOG, 2017c). First, the PyeongChang Olympics minimized GHG emissions from vehicles through the construction of a nature-friendly transportation infrastructure. The construction of the Wonju-Gangneung high-speed railway contributed to a reduction of GHG of 2,867.6 tCO2e by providing public transportation used by 10 percent of visitors (2,158,000) during the Olympics. In addition, the POCOG operated 150 electric vehicles during the event through a business agreement with the Korea Electric Power Corporation. The POCOG also operated 15 hydrogen vehicles through cooperation with the Ministry of Trade, Industry and Energy, Gangwon Province and Hyundai Motor Company. These eco-friendly vehicles reduced the greenhouse gas emissions from transportation between Olympic venues. Moreover, a total of 26 quick charging stations (24 electric charging stations and 2 hydrogen charging stations) set up will be maintained after the closing of the Olympics, facilitating the spread of eco-friendly vehicles by residents in Gangwon Province. (Interviewee 8, 2019)

Second, GHG reduction was achieved through the use of eco-friendly buildings and alternative renewable energy sources. The energy efficiency of the six new Olympic venues for the PyeongChang Winter Olympics was maximized by applying eco-friendly design techniques. As explained in Table 7.8, all new venues for the PyeongChang

Olympics have been G-SEED (Green construction certificate) certified and applied Passive Building Techniques, an eco-friendly construction method that minimizes energy losses. Solar and geothermal energy facilities were also installed in every new stadium to provide its own energy source. The total amount of greenhouse gases reduced by this was 1,207.2 tCO2eq (POCOG, 2018).

Table 7.8 Eco-friendly Building Certificate

Olympic Venues	Certification Grade	
Olympics Sliding Centre	G-SEED Excellent	Certified as an energy efficient building
Gangneung Oval	G-SEED Great	Certified as an energy efficient building
Gangneung Ice Arena	G-SEED Great	Certified as an energy efficient building
Gangneung Hockey Centre	G-SEED Great	Certified as an energy efficient building
Kwandong Hockey Centre	G-SEED Great	Certified as an energy efficient building
Jeongceon Alpine Centre	G-SEED Normal	N/A

(Source: POCOG, 2018:28)

7.4.1.2 Minimize Environmental Damage

Another environmental goal of the POCOG is the preservation of the Gangwon ecosystem through the minimization of damage to nature caused by the Olympics and is restoration.

First, the POCOG created alternative forest development to restore the forest affected by the construction of the Olympic Stadiums. This is a fulfilment of the promise to create a forest that will more than double the size of the forest, as stated in the PyeongChang bid (POBICO, 2010b). As described in Table 7.9, 79 hectares of forest were reforested by 2017 and an additional 96 hectares will be reforested later.

Table 7.9 Reforestation Plan of POCOG

Status	Year	Area(ha)
Established	2012~2016	45
	2017	34
Planned	2018	28
	After 2019	68
Total		175

(Source: POCOG, 2018: 34)

In addition, to ensure the health and quality of life of various participants, including athletes, visitors and volunteers, the air quality of the Olympics venues and hosting cities was maintained at the level of 'good' or 'average' in all air pollutants during the Olympics. Through various waste minimization schemes, such as building a separate recycling system and recycling food waste, a total of 6,5146 tCO2e was reduced during the competition period. They also achieved an incinerated waste recycling rate of 18.1 percent through strict recycling (POCOG, 2018).

7.4.2 Evaluation of the Implementation of the Environmental Legacy

Climate change around the world, which has recently emerged as one of the biggest issues in the field of the Winter Olympics, is the main culprit for greenhouse gases, thereby reducing the number of winter sports-enabling environments worldwide. In line with this trend, through the PyeongChang Olympics, the POCOG sought to host the most environmental Olympics in Olympic history to become a good role model for future sports mega-events. The PyeongChang Olympics proposed minimizing greenhouse gas emissions and minimizing environmental damage as its main environmental legacy. Unlike the economic legacy that leaves a visible legacy and the social legacy that helps boost the soft power of hosting states, the environmental legacy of the Olympics is relatively hard to find after the Olympics close. Regardless of whether the Olympic legacy is intangible or tangible, the most important aspect of the environmental legacy of the Olympics is how the Olympic hosting city maintains its original natural ecosystem. Nevertheless, environmental degradation is inevitable as a necessary evil in hosting the

Olympics.

As an environmental legacy of the PyeongChang Olympics, there was an issue of environmental destruction. The Korea Forest Service, part of the central government of the Republic of Korea, which worked with the PyeongChang Organizing Committee for the replacement forest project for the PyeongChang Olympics, assessed that although positive results could be achieved regarding greenhouse gas emissions, there were many detrimental aspects related to environmental degradation. The most controversial part was the Jeongseon Alpine Skiing Resort located on Mt. Gariwang. The Jeongseon Alpine Skiing Resort initially caused conflicts between Gangwon Province and the central government over the location selection. Also, many PyeongChang Olympic stakeholders have been at odds over the original plan to restore it after the Olympics closed.

As such, the central and local governments are sharply divided on the issue of restoring the Jeongseon Alpine Stadium. First of all, the central government's position is to fully restore the natural forests as originally planned. The stakeholders related to the issue are the Korea Forest Service and the Ministry of Environment from the central government, and Gangwon and Jeongseon, where the Jeongseon Alpine Centre is located. The forest of Mt. Gariwang, at the centre of the issue, was designated by the Korea Forest Service as a forest genetic resource reserve in 2008, where development of the area is restricted under the Management of Mountainous Districts Act. However, the special provision for the development of the forest genetic resource reserve under the 'Special Act on Support for the 2018 PyeongChang Winter Olympics and Paralympic Winter Games' allowed the Korea Forest Service to build Jeongseon Alpine Centre on Mt. Gariwang in 2013. It included 78 hectares of a total of2,475 hectares (about 3 percent) on Mt. Gariwang that have been removed from the protected area (Kim, 2013). The treaty stipulated by the Korea Forest Service at the time of the convention focused on the restoration plan after the closing of the Olympics, although it inevitably damages the forests as follows:

> Restoration of damaged areas should be carried out as a top priority in order to recover the natural nature of the area as soon as possible after hosting the Winter Olympics, and the results should be presented in the Environmental Impact Assessment Report after reviewing various

> measures to implement them in detail…Since the selection of a site for the project was made based on the assumption that the ecological areas such as the forest genetic resource reserve were restored during the site selection phase of the project, specific restoration measures after the competition to implement them should be prepared and presented (Wonju Regional Environmental Office, 2013).

As such, the Ministry of Environment advised Gangwon Province to come up with concrete measures to restore the damaged areas after the Winter Olympics, but the original version of the environmental impact assessment submitted by the Gangwon provincial government did not include specific directions for the restoration. On 27 March 2014, a conditional permit for the use of mountain areas for Jeongseon Alpine Centre was finally granted by the Korea Forest Service without a definite plan for restoration with nominal details:

- To be reviewed by the Central Mountain Management Committee by submitting a restoration plan including post-use planning before the Winter Olympic Games.
- Organization of forest ecological restoration centres or committees that can be monitored for continuous restoration (KICSD, 2018)

From an environmental perspective, it is clear that Gangwon Province expressed an irresponsible attitude toward the environment. During the PyeongChang Olympics preparation period, the central government asked Gangwon several times to state in the action plan how it would restore the alpine centre, but the Gangwon local government did not provide any specific plans. This is because Gangwon Province approached the Alpine Centre in the context of regional economics. As explained by a Gangwon official, who was involved in the PyeongChang Olympics:

> We (Gangwon Province) need to restore the Alpine Centre to a forest genetic resource reserve. However, we invested more than 200 billion Won to build slopes, gondolas and roads. We don't have an exact budget yet to restore it, but it will cost us more than the cost of building the Alpine Centre. So we think that if we leave a gondola and a road, we can use the view from Mountain Gariwang to create a great value added, such as mountain tourism and an eco-experience centre (Interviewee 07, 2019).

A member of the POCOG claimed that despite much environmental criticism of the Jeongseon Alpine Centre, the venue was fully appraised for environmental impacts and was of great value as an Olympic Legacy:

> The views of the central government and Gangwon Province are very different. Basically POCOG is not in charge of this legacy, but I think Mountain Gariwang should be left with much of it as a tourist resource. Even if we invest 200 billion Won again to restore the construction, we will not be able to restore it. In fact, it's not as bad as environmental groups claim. From the design stage, natural damage was minimized. For the first time in the history of the Olympics, it was built by integrating the men's and women's courses and minimizing environmental damage by repositioning them from Jungbong to Habong (Interviewee 08, 2019).

Jeongseon is one of the three host cities of the PyeongChang Olympics, where no legacy plan was put in place because only one Jeongseon Alpine Centre existed. From the perspective of the local government, it was keen to boost the sluggish local economy through the Olympic legacy created through the Olympics. A study on the basic planning of Jeongseon County's winter Olympic legacy established in 2015 showed that Jeongseon County was planning to revitalize the northern region of Jeongseon through the use of an Alpine Centre (RIG, 2015). In this regard, opinions on the retention of the Alpine Centre in Jeongseon can also be seen in the 2018 election for Jeongseon county governor. Given the characteristics of Korean politics under the Local Autonomy Act, which selects heads of local governments through elections, candidates' election pledges are bound to include the agenda items most urgently sought by the residents concerned. As Table 7.10 shows, three candidates ran for the 2018 election for Jeongseon county governor, all supporting the retention of the Jeongseon Alpine Centre. Considering these pledges reflected public sentiment, it can be seen that the restoration of the Alpine Centre is strongly opposed by residents of Gangwon-do, especially Jeongseon.

Table 7.10 Election Promise of 2018 election for Jeongseon County Governor regarding Jeongseon Alpine Centre

Candidate No	Election Promise

Candidate 1	Creating new jobs and the development of tourism efficiently utilizing the Jeongseon Alpine Centre: development of an eco-experience centre.
Candidate 2	The Jeongseon Alpine Centre with resort complexes and gondolas is used as a local tourist resource: South Korea's ski training ground and hosting of an international ski competition.
Candidate 3	Utilization of the Jeongseon Alpine Centre to link with another ski resort (High 1 resort) in Jeongseon.

(Source: Yoon, 2018:online)

The cause of this conflict between central and local governments is the excessive business progress of the Olympics and the absence of an organization that can mediate when institutions are in conflict. The plan for the location of Olympic venues in the PyeongChang bid book should have been preceded by a national-level discussion on the selection of the Olympic venue regardless of whether an Olympics is taking place or not, especially in the case of an Alpine Centre whose location selection is important due to the characteristics of the sport. Completion of the Alpine Centre was imperative for the hosting of the FIS Ski World Cup, a test event scheduled for February 2016. However, with construction delayed due to environmental damage, discussions between the Korea Forest Service and Gangwon Province were completed without any concrete plans. In addition, a mediation body was needed to reconcile the conflicts between the central and local government agencies, even though the Ministry of Environment has repeatedly stated that the environmental impact assessment submitted by the Gangwon provincial government does not have any specific plans for restoration. This has left not only the future of the stadium but also the future of Mt. Gariwang in doubt, as the central government's administrative incompetence and also the impatience of Gangwon Province have only valued the hosting of the Olympics.

7.5 Conclusion

This chapter demonstrated the actual outcome of PyeongChang's plan to leave behind a

sustainable legacy. It also demonstrated the practical problems that caused the PyeongChang Olympics to not leave behind the sustainable Olympic legacy as originally planned.

First, through the PyeongChang Olympics, Gangwon Province and South Korea achieved their strategic goals. Gangwon Province, which has lagged behind the balanced development of South Korea, sought comprehensive development of Gangwon Province with the hosting of the PyeongChang Olympics. For transportation infrastructure, more than twice the budget spent on the PyeongChang Olympics was spent on the development of transportation infrastructure, including high-speed trains and expressways that connect Gangwon Province to Seoul. The aim of the transport network was not only to link the west and east of South Korea, but also to lower the psychological barrier surrounding Gangwon Province. In this regard, Gangwon is taking an opportunity to promote a logistic hub in Northeast Asia as Gangwon's next strategic goal. Those benefits of PyeongChang Games correspond with the literature, suggesting that hosting sports mega-event is an effective tool for promoting regional development (Müller, 2015c, Gospodini, 2002).

The Olympic venues of the PyeongChang Games are also the result of the strategic goals of the Gangwon. Gangwon has established itself as the mecca of winter sports in South Korea, in renown and in reality, through the PyeongChang Olympics. As Chalip and Costa (2005), Brown et al. (2004) and Smith (2005) stated, hosting sports mega-events contributed to enhancement of the destination image in terms of tourism. The local government is taking the opportunity to develop a centre of winter sports through the Olympic venues, a legacy of the PyeongChang Olympics. In addition, Gangwon Province has lagged behind the balanced development of the Republic of Korea, with Gangwon residents having a relatively low regional identity. The positive impacts of sports mega-events for local residents is an enhancement of their community pride and quality of life, directly or indirectly (Andereck and Nyaupane, 2010). As a strategic goal, Gangwon Province planned to increase the regional identity of its citizens through the Olympics. Gangwon citizens who participated in the PyeongChang Olympics directly or indirectly could see their pride for Gangwon Province rise. Moreover, Gangwon residents who participated in the Olympics themselves could be used in various future international

events as human infrastructure. In this context, it is clear that Gangwon achieved the strategic goals they had originally planned. The sports-related infrastructure and human resources gained from hosting the Olympics will also contribute to the subsequent following events, which will be the starting point for Gangwon Province to develop in the future, not just a one-time event. South Korea also had the best performance ever at the PyeongChang Olympics. It was the Republic of Korea's strategic approach to promote the development of winter sports in the wake of the PyeongChang Olympics, in relation to the winter sport development project that began in 2011. It is also a great outcome for the PyeongChang Olympics that South Korea won medals in several sports that have never even been able to reach the medal table.

Second, Korea was able to boost its soft power through the PyeongChang Olympics. North Korea's participation in the PyeongChang Olympics has continued to be tried through various channels in the South. However, it was unclear whether it would be achieved. The inter-Korean consultations, which took place a month before the Olympics, were smooth and unforeseen in the history of the Republic of Korea. It is clear that the PyeongChang Olympics was the starting point of the three inter-Korean summits and the U.S.-North Korea Singapore Summit. It also embodied world peace through the sport pursued by the IOC as a peace Olympics, involving North Korea in the divided country. Entering the opening ceremony together under the Korean Unification Flag broadcast the worldwide realisation of peace through sports. Moreover, the unified inter-Korean women's hockey team is a great example of the unity of the two divided countries, regardless of their performance as the first unified inter-Korean team in Olympic history. In fact, there have been joint parades of North and South Korea at previous sporting events. However, the reason the PyeongChang Olympics is even more meaningful is the first unified inter-Korean Olympic team ever, and the dramatic reconciliatory mood that took place when the world is aware of the danger posed by North Korea's nuclear weapons test right before the PyeongChang Olympics. The Olympics also served as an opportunity to improve the soft power of the Republic of Korea, including an enhancement of its international image due to the palpable mood for peace with North Korea, the diplomatic ability to bring North Korea to the U.S.-North Korea talks table, and a rise in domestic political approval ratings. Until then, the Republic of Korea had pursued exchanges

through sports with North Korea, which was more frequently during the liberal administration. North Korea's participation in the 2018 PyeongChang Winter Olympic Games and the subsequent summit meetings boosted the soft power of the Republic of Korea with President Moon Jae-in, who has a relatively liberal stance. This finding corresponds with literature, suggesting that sport is part of a soft power to improve national image (Grix, 2013).

The main obstacle to the sustainability of the PyeongChang Olympics was the lack of a clear plan for post-Games use of Olympics venues and conflicts of interest among stakeholders of the PyeongChang Winter Games.

First, the PyeongChang Olympics hampered its sustainability through several changes in location and design in the construction of Olympic venues. Through this process, the Olympic Stadium was built as a temporary building, and the Gangneung Oval, originally planned as a temporary building, was finally decided to be permanent. These frequent changes created constraints in the planning of the post-utilisation of Olympic venues. The post-Games use of Olympic venues is likely to degenerate into a ‘white elephant’ that economically torments the Republic of Korea as well as Gangwon Province. Notwithstanding, Gangwon Province designated the post-Games use of Olympic venues in the bid file, and there are still three Olympic venues that have not yet decided upon the subject of their managing body.

Second, there was lack of communication between PyeongChang Olympic stakeholders. There were opportunities to enhance the PyeongChang Olympics’ economic sustainability through venue-sharing with other countries and cities, but South Korea and Gangwon refused all requests for venue-sharing. However, it is difficult to dismiss this simply as regional selfishness. If the IOC, the POCOG, or the NOC had smoothly communicated and started consultations before construction began, the venue-sharing could have dramatically reduced the financial burden of the PyeongChang Olympics and improved economic sustainability. In addition, during the course of the stadium construction, the cost of construction was increased due to a lack of communication with the host city, Gangwon Province, and each IFs. This supports the work conducted by

Chappelet (2016), that there is no clear definition of the relationship between essential Olympic stakeholders.

The third issue was the conflict between local and central governments. There were various stakeholders at the PyeongChang Olympics, between which there were many conflicts over subsidies from Gangwon Province and the central government. The central government, the Ministry of Strategy and Finance, the Ministry of Culture and Tourism and the local government, and Gangwon Province were often at odds over the budget for the Olympics and the post-utilisation of Olympic venues. The cause of the conflict is the lack of a clear budget plan from the Olympic bid phase. Also, an environmental issue was the natural damage to Mt. Gariwang, where the alpine stadium was built. Some natural damage from the Games is inevitable, but restoration should be completed as originally planned. However, Jeongseon, where the alpine stadium is located, is strictly controlled from the perspective of regional development. Jeongseon insists on retaining it, not demolishing it. On the other hand, the results are still unclear as of 2019, as the central government insists on restoring the alpine stadium as originally planned.

CHAPTER 8 Discussion and Conclusion

8.1 Introduction and Purpose

The main aim of this study is to investigate how to deliver a sustainable legacy from the PyeongChang 2018 Winter Olympic Games. It aims specifically to provide an analysis of actual outcomes in the implementation of a legacy strategy of sports mega-events from the sustainability standpoint and to illuminate the key obstacles in legacy strategy implementation.

This final chapter consists of two principal sections. The first section presents the findings of the case study: the Vancouver, London and PyeongChang Olympics, including key findings, academic and practical contributions, and limitations of the study, within the discussion chapter. The second section, by way of conclusion, provides an overall summary of this research, with new areas for future research.

8.2 Discussion

The Vancouver and London Olympics established and implemented strategies for a sustainable legacy. From the legacy planning and results of both Olympics, this study found the following factors that improved the sustainability of each Olympics. Vancouver's strategy is largely divided into three: 1) the establishment of a legacy plan through communication with Olympics stakeholders; 2) an attempt to resolve social issues through the Olympics and 3) presenting the standards for environmental sustainability. The strategy for a sustainable legacy at the London Olympics is as follows: 1) establishing a clear goal of regional development by means of the Olympic Games; 2) systematic planning of an Olympic legacy and the establishment of a legacy organisation; and 3) the development of an Olympic legacy through connection with the local community.

The PyeongChang Olympics also established a sustainable legacy strategy in terms of

Triple Bottom Line framework.

Economic Legacy Strategy of PyeongChang

First, the economic strategy to deliver a sustainable legacy for the PyeongChang Olympics was similar to the urban development of East London at the London Olympics. Gangwon Province, the host city of the PyeongChang Olympics, hoped for economic development through the Winter Olympics. However, Gangwon Province, which is not a metropolis like London, sought to develop a transportation infrastructure as a necessary condition for its economic development. A transportation infrastructure and Olympic venues also played a very important role in developing the tourism industry as a hub for winter sports. While the transportation infrastructure was built according to the plans in the bid book, the Olympic venues were very different from those originally planned and were subject to additional construction costs due to frequent changes in design and location. There were also three Olympic venues that had not been determined by the governing body after the Olympic closing ceremony. This was the result of poor planning just for the Olympic Games, without careful discussion about post-Games use of the venues, even though this issue was clearly mentioned in the PyeongChang bid book.

Social Legacy Strategy of PyeongChang

Through the hosting of the PyeongChang Olympics, Gangwon planned strategically 1) the promotion of the regional identity of Gangwon residents; 2) the development of winter sports in South Korea and 3) the promotion of South Korea's soft power through North Korea's participation in the Games, as social legacies of PyeongChang Olympics. The Gangwon provincial government planned to promote the local identity of residents in Gangwon Province, a remote part of South Korea. During the PyeongChang Olympics, many Gangwon Province residents participated in the Olympics directly or indirectly, which improved their regional identity and pride. Those who participated directly in the Olympics, by volunteering and supporting, will be of great help to Gangwon Province in hosting future events, as human infrastructure.

The development of winter sports in South Korea is also one of the social legacies from the PyeongChang Olympics. Through cooperation between the KOC and the POCOG, the Republic of Korea promoted the development of Korea's winter sports and achieved its best Olympic results ever. It also contributed to the balanced development of winter sports in Korea by winning a number of medals in events that had never appeared in the Olympic medals table. This achievement was not only the result of long-term planning, but also because South Korean athletes were able to practise at the Olympic Stadium as theirs was the host country.

The last social legacy was that North Korea's participation in the PyeongChang Olympics gave South Korea an opportunity to strengthen its soft power. South Korea sought to realise world peace through sports, the ultimate goal of the Olympics, through North Korea's participation in the Games. Although North Korea's participation was decided a month before the Olympics took place, it was possible to find various symbols of peace between the two countries at the PyeongChang Olympics. Even after these achievements, the Republic of Korea played a major role in holding the 2018 US–North Korea Singapore Summit through three rounds of inter-Korean summits. Through this series of processes, the tension on the Korean Peninsula, which had been aggravated by nuclear tests, was eased. It was also an opportunity for South Korea to boost its soft power. South Korea's diplomatic ability to lead North Korea to the US–North Korea talks is the soft power of the South Korean nation gained through the PyeongChang Olympics.

Environmental Legacy Strategy of PyeongChang

As an environmental legacy strategy, PyeongChang set goals for minimising natural destruction and delivering O2 Plus Green Olympics. As a result, PyeongChang succeeded in being an Olympics that followed regulations relating to carbon emissions and their reduction, but that failed to meet its goal for natural destruction. The case of Mt. Gariwang, where an alpine venue was built, illustrates this point: the central and local governments were sharply divided over the restoration and maintenance of the centre. The local government insisted on the development of the tourism industry through the maintenance of facilities, while the central government insisted on the restoration of the tourism

industry as planned.

The Negative and Positive Factors of Sustainability in PyeongChang

The factors that posed an obstacle to the implementation of the sustainable legacy plan for the PyeongChang Olympics were analysed as follows.

First, an Olympic legacy plan established without stakeholder consultation is difficult to implement. The lack of a definite plan led to changes in the location and design of the Olympic venues. Most of the changes were based on uncertainty. There was a conflict between central and local governments because the amounts in government subsidies had not been fixed since the bid stage. The alpine centre was also at odds with the central government over restoration and preservation and because of the lack of consultation and definite plans for construction, even though the construction of an alpine centre on Mt. Gariwang was stated during the bid stage.

Second, there was a lack of communication among stakeholders. Although there was an opportunity to improve the sustainability of the PyeongChang Olympics through venue sharing, it was difficult to achieve realistic goals due to this lack of communication. In addition, the lack of communication between the IFs and Gangwon Province in the construction of the Olympic venues often led to additional expenses.

Third, the governance of the PyeongChang Olympics also needed improvements to enhance sustainability. The governance was inefficient because of the large number of dispatched officials. In addition, sports experts should have been recruited from the initial stages to leave a sustainable legacy for the whole process of the Olympics.

There are also positive factors relating to improving sustainability, one of which was to establish the PyeongChang 2018 Legacy Foundation, based on the surplus generated by hosting sustainable Olympics. Established in 1988 from the surplus generated by the Seoul Olympics, the Foundation is currently spearheading the development of various fields, which has had a profound impact on the development of sport in the Republic of

Korea. This shows that the Foundation has, for the past three decades, been the most effective way to manage the Olympic legacy and develop sport in the context of the Republic of Korea. The PyeongChang Legacy Foundation is as yet a new organisation, but it will be expected not only to help PyeongChang but also to host subsequent winter sports events in the Republic of Korea to carry out its work in managing the Olympic legacy and developing winter sports.

Sustainability of Three Olympics: Vancouver, London and PyeongChang

This research analysed factors that impede the sustainability of an Olympic legacy by studying three cases: the Vancouver, London and PyeongChang Olympics.

First, it is essential to establish in advance a definite plan through stakeholder consultation. It can be seen that the primary goal that local governments want to pursue through hosting the Olympics is to fund central government. With such financial support from the central government, local governments build the most urgent part of the infrastructure. The first priority set by Gangwon Province in hosting the PyeongChang Olympics was the construction of transport infrastructure. Given the situation of Gangwon Province, the construction of transport infrastructure was rational choice to develop Gangwon Province. As London and Vancouver are metropolises each with a well-established infrastructure, the London and Vancouver Olympics planned to develop a deprived area or add to their infrastructure as they prepared for the Olympics. However, Gangwon Province, where PyeongChang is located, expected economic benefits from the connection with Seoul, the capital of South Korea (as a tourism and logistics hub). Considering that many Olympics have been held in metropolises, the legacy strategy of the PyeongChang Olympics was different from the existing ones, especially in the cases of Vancouver and London.

However, these strategies were not established on the premise of hosting the Olympics. They chose the Olympics as a catalyst for the development that was previously planned. The revitalisation of East London, which was the main goal of the London Olympics, was a long-term urban development project planned since the late 1990s. The development of the transportation infrastructure in Gangwon, which was the main goal of the

PyeongChang Olympics, was included in the Fourth Comprehensive Territorial National Amending Plan. Gangwon Province was able to build its transportation infrastructure faster than originally planned by using the Olympics as an impetus, thus avoiding delays.

The Olympics have traditionally been held mainly in big cities or developed countries due to the 'One City' principle. With the influence of Agenda 2020, the possibility of small- and medium-sized cities or cities in developing countries hosting sports mega-events such as the Olympics has increased through venue sharing. As shown in the case of PyeongChang, hosting sports mega-events is accompanied by a will related to the strong regional development of the local government concerned. Such a strong commitment to regional development is likely to take priority over the successful hosting of sports mega-events; in such cases, bid files for sporting mega-events may primarily include those relating only to the interests of local governments. In the case of PyeongChang, the central government's interest in hosting the Olympic Games was relatively small after two failed bids. When drawing up a bid book for its third challenge, it was confirmed that the Gangwon provincial government's position was prioritised regardless of the opinions of its stakeholders, who would participate in the Olympics. This differs from the fact that the opinions of various stakeholders were reflected in the bid submitted by Vancouver.

In the case of sporting events without pre-planning, several examples of harming sustainability can be found at the PyeongChang Olympics. It can be seen that there were many conflicts throughout the Olympic process, from conflicts between the central and local governments through the amount of government funding immediately after the decision to host the Games, to conflicts related to government subsidies for managing the Olympic venues after the closing ceremony. A very high proportion of the costs in the Olympic budget is allocated to construction. In terms of the post-Games use of the Olympic venues, the occurrence of a 'white elephant' can be found not only in PyeongChang's case but also in previous Olympics. With the establishment of such institutions, the legacy of the London Olympics was dismantled after the Olympics and permanent facilities were reborn as facilities for local residents or elite sports under tight management. The London Olympic Park, in particular, could see the development of

London's slums as a new London hotspot under its long-term legacy plan. In addition, the biggest problem is the post-use cost of Olympic venues. These additional costs do not go into hosting the Games or building the venues and all are covered by taxpayers' money. To prevent this, the post-Olympic use of each venue must be clearly defined from the bid stage. In general, considering that most Olympic facilities are built in the host city, if the local government cannot afford all the financial burdens, it should agree at the bid stage how much the central government will subsidise the funding.

Second, there was a lack of communication among Olympic stakeholders. The Olympic Games are a mega-event involving various stakeholders and interacting organically under the IOC's coordination. In the case of the PyeongChang Olympics, however, a lack of communication was revealed. Although the PyeongChang Olympics were able to secure sustainability through venue sharing with other countries and cities, it was decided to be held without venue sharing due to the lack of communication between respective stakeholders. In addition, even in the construction of Olympic venues it was confirmed that additional costs were incurred due to the lack of communication with Gangwon Province, which was in charge of construction, and with each IF. To prevent this, active communication between each stakeholder should have taken place throughout the entire Olympic process. London prevented this problem by establishing the Commission for Sustainable London 2012 (CSL), an independent body that monitored whether each Olympic stakeholder would commit to the sustainability of the London Olympics. In addition, communication with the local community and reflection on opinions were difficult to find in the PyeongChang Olympics in order to reach a social consensus. The legacy of the PyeongChang Olympics addressed the urgent problems of Gangwon Province as its top priority, but there was less communication with the Gangwon community. On the other hand, in the case of the London Olympics, the Olympic Legacy Plan sought to reflect the social and economic needs of local residents. Also, in the case of the Vancouver Olympics, a legacy for the local community was prepared before the Olympics were held.

Third, shortcomings were found in the governance of the PyeongChang Olympics. As continuity caused by the rotational work of dispatched public officials was reduced, the

efficiency of the work related to the Olympics was greatly reduced. From the preparation stage, trials and errors existed due to the lack of sports experts. The London Olympics established a governing body to develop and manage legacy through a division of labour. The Olympic Delivery Authority (ODA) was the driving force behind the infrastructure legacy and the Olympic Park Legacy Construction (OPLC) showed that the governing body's role was well distributed, with Olympic-related facilities in charge of post-Games use of the Olympic facilities. The CSL also oversaw sustainability and monitoring during the Olympic preparation period. In the case of Vancouver, from the stage of hosting, an independent organisation called Legacy Now was established to develop and manage the legacy even after the Olympics.

Finally, stricter management and regulation will be needed for the environmental legacy. Environmental sustainability, one of the three pillars of sustainability, performed better than expected throughout the Vancouver and London Olympics. However, Canada and the UK, as developed countries, are aware of their environmental responsibility and the degree of natural damage was relatively low since the Olympics were held in big cities, unlike the PyeongChang Olympics, which were held in mountainous areas with very few inhabitants. PyeongChang hosted O2 Plus Green Olympics. However, the issue that remained afterwards was the conflict between the central and local governments over the restoration and maintenance of the alpine skiing centre. PyeongChang's case showed that even though the restoration plan existed, it was difficult to implement the restoration plan if stakeholders had conflicting interests. Environmental sustainability is the most difficult of the three pillars of sustainability to restore. In the case of Mt. Gariwang, the construction did not take years, but even if restoration were to take place, it would take decades or even hundreds of years for the dense forest to grow again. To improve this environmental sustainability, host countries must first map out at the bid stage a plan to minimise natural damage. Moreover, there is a pressing need for an independent agency, a third party that can mediate in the event of such conflict.

These findings are supported by the following studies. In the research on obstacles to producing a green economy during the World Cup and Olympic Games, Preuss (2013) states that host cities and countries must ensure that the promises are fulfilled to promote

the environmental sustainability of sports mega-events. The results of the studies show some support for this research. This study has focused on the damage to nature caused by the Olympics through the case study of the PyeongChang Olympics and has looked at the conflicts between central and local governments over the restoration and maintenance of the alpine skiing centre since the end of the Games. This study has also advocated the establishment of an additional organisation to manage environmental sustainability, as well as the need for stricter regulation of environmental legacy.

According to Müller (2015b), there were change factors in the sustainability agenda of the Sochi Winter Olympics. These factors took issue with the lack of institutional controls, time pressure and dysfunctional governance. His study also supports the results of this study in terms of governance. Müller points out Sochi's structural governance problems, arguing that a holistic approach to the triple bottom line made the activities of environmental sustainability more difficult. It is seen that this study supports the development and management of sustainable legacy through the establishment of various governance organisations presented herein.

The sustainability of the Olympics is a theme that takes into account economic, social and environmental aspects. However, with the environmental aspects of sustainability highlighted, research on other parts of sustainability (the economic and social legacies from the Olympics) has been conducted as an independent study, not as a topic of sustainability. Since the Olympics leave a sustainable legacy in harmony with the economic, social and environmental pillars, the main study, which analysed the three pillars of sustainability of the previous Olympics, is meaningful. Among the Olympics considering sustainability, the case study for Vancouver, which introduced sustainability for the first time, and the London and PyeongChang Olympics, which hosted a successful sustainable Olympics, provide implications for the countries and cities hoping to host future sports mega-events in terms of sustainability.

Moreover, this study also revealed that governance is an essential factor in improving the sustainability of sports mega-events. To improve the sustainability of sports mega-events, the IOC has strengthened the establishment of a sustainable legacy plan that takes into

account economic, social and environmental aspects. However, this study revealed that the sustainability of sports mega-events is closely related to governance in the host country, and that such governance is determined and constructed by the internal and external factors of the host country. Given that existing studies and plans for a sustainable legacy of the IOC were not taking governance into account, this study gave the rationale that more focus should be placed on the composition and role of governance, the principle which implements legacy plans, in order to improve the sustainability of sports mega-events.

In addition, the PyeongChang Games were hosted by provincial governments in small cities, a good example for small- and medium-sized cities and developing countries hoping to host the Olympics in the future. Currently, the number of countries hoping to host sports mega-events is decreasing due to economic burdens and public opposition. However, co-hosting the Olympics or venue sharing through Agenda 2020 is expected to attract bids from cities that have not been able to host the Olympics and have been unable to challenge for economic reasons. This study provides a good example of the sustainability of the PyeongChang Olympics as a reference for these cities.

8.3 Conclusion

This final section addresses the research questions presented in Chapter 1. These are repeated below:

1. What legacy strategies did the two previous Olympics in Vancouver and London use to develop sustainability?

2. What are the discrepancies in the plan for a sustainable legacy of the PyeongChang Olympics between the bid proposal and actual realisation? Why?

3. What are the factors to consider for a sustainable post-SME legacy in Korea?

To answer research question 1, this study analysed the legacy aims and outcomes of the Vancouver and London Olympics (see Chapters 5, 6 and 7). As a result, Table 8.1 shows

the positive factors that improved sustainability at each Olympics.

Table 8.1 Positive Factors for a Sustainable Olympic Legacy in Vancouver and London

Event	Factors	Governance
Vancouver 2010 Winter Olympic Games	- Establishing a legacy plan through communication with stakeholders - Attempt to resolve social issues through the Olympics - Presenting standards for environmental sustainability	Legacy Now 2010
London 2012 Summer Olympic Games	- Establishing a clear goal of regional development by means of the Olympic Games - Systematic planning of Olympic legacy and establishment of legacy organisation - Development of Olympic legacy through connection with the local community	Olympic Delivery Authority Olympic Park Legacy Construction Commission for Sustainable London 2012

To answer research question 2, this study compared the results of the bid file and actual outcomes of the legacy plan for the PyeongChang Olympics. As a result, in terms of the economic legacy, there were differences in the post-Games use of the Olympic venues and the amount of government funding for the PyeongChang Olympics. In terms of social legacy, the hosting of PyeongChang boosted the soft power of South Korea caused by North Korea's unexpected participation. Finally, the environmental legacy section concerned the issue of the retention and restoration of Mt. Gariwang, where the alpine centre was set up.

These issues were identified through document analysis and semi-structured interviews as to why there were differences in the actual implementation of such legacy plans and what impeded and improved the implementation of those sustainable legacy plans, as described in Table 8.2.

Table 8.2 Positive and Negative Factors for a Sustainable Olympic Legacy in PyeongChang

Sort	Factor
Positive	- Establishment of the PyeongChang 2018 Legacy Foundation
Negative	- Olympic Legacy Plan established without stakeholder consultation led to difficulties in implementing the plan - Lack of communication among stakeholders - Governance of the PyeongChang Olympics also needed improvements to enhance sustainability

To answer research question 3, all factors of the sustainability of the last three Olympics were aggregated to establish a new sustainable legacy strategy for potential sports mega-events in Korea in terms of Triple Bottom Line framework.

First of all, definite plans with stakeholder consultation in advance for economic, social and environmental sustainability

- Establishment of a clear legacy aim
- Establishment of detailed plans from the bid stage, including the post-Games use of legacy and government subsidies

Second, active communication among stakeholders related to sports mega-events for economic and social sustainability

- Reflect opinions of stakeholders during whole process, especially those of the local community

- Establishment of an independent organisation for promoting communication among stakeholders

Thirdly, efficient governance for sports events for economic, social and environmental sustainability

- Establishment of a legacy organisation from the bid stage to the end of the event
- Establishment of an independent organisation for mediating conflict between stakeholders
- Establishment of an independent organisation for monitoring stakeholders
- Segmentation of the work of legacy organisations (economic, social and environmental legacy)

Finally, strict management and regulation for environmental legacy for environmental sustainability.

- Introduction of strict environmental standards to prevent environmental degradation
- Institutional strategy that enables environmental legacy aim on bid files to be realised

8.3.1 Limitations of the Research

This study has the following limitations. The first is the lack of diversity among interviewees. This study had 10 interviewees to analyse the process of implementation of a sustainable legacy in the PyeongChang Olympics. Although the interviewees were involved in the PyeongChang Olympics, working on the POCOG, in central government, in Gangwon Province or on the Korean Sport & Olympic Committee, or were sports experts, it was difficult to obtain comprehensive data on all economic, social and environmental issues. Through the selection of interviewees, who were heavily involved in the PyeongChang Olympics at a high level, a wide range of professional knowledge and experience of the legacy of the PyeongChang Olympics could be collected. There are

some areas in which stakeholders failed to reflect the opinions of both sides in the course of their conflicts during the process of implementation of a sustainable legacy. However, given that it was not possible to interview all stakeholders, it was best to conduct interviews around the POCOG, which was most deeply involved in hosting the Olympics and in their legacy. In line with the limitations, more data from various groups of stakeholders, such as the local community, could not be collected through the interview process. The research missed out on collecting empirical data from other groups of stakeholders who have been directly or indirectly involved in the PyeongChang Olympics.

At this point, it is worth recalling that the methodological approach adopted, like all methodological approaches, has limitations in the manner and reach of its ability to deal with both the reliability and validity of data. Much of the discussion around types of research paradigms in social science often revolves around the use of specific research methods employed in research, whereby 'postitivists' favour methods producing quantitative data and 'interpretivists' favour methods producing qualitative data. Quantitative data is often seen as more 'reliable' and 'valid' as it is 'objective' and 'value free'. Interpretivists dispute this claim, suggesting that it is impossible to produce 'objective' data and that the researchers themselves bring with them value-laden attitudes whether they know this or not (Grix, 2019). Thus, an interpretivist approach, such as that adopted in this study, may not lend itself to explanations of causality, but rather to grasping participants' understanding of their actions and the contexts within which they act.

The second limitation of this study is that the proposed improvement in sustainability of sports mega-events may depend on the government and political system of the host country. The role of central government is paramount in carrying out national projects such as the Olympics. In the case of the PyeongChang Olympics, conflicts existed between central and local governments because the bid was won under the initiative of the local governments and then became a national project for central government. However, if a strong central government were to oversee all aspects from planning to implementing the Olympic Games, there would be less to do in terms of its strategy to leave a sustainable legacy, as suggested in this study. In the case of the 1988 Seoul

Olympics, there were fewer conflicts among stakeholders and fewer additional external factors than at other Olympics regarding leaving an Olympic legacy due to the strong leadership of the central government.

This leads onto the final limitation of this study: the selection of cases. In terms of the selection of case studies, two previous Olympic Games, Vancouver and London, are selected as a part of this study case. The study selected Vancouver and London as case studies in relation to the sustainability of the PyeongChang Olympics. Along with having a similar political system as South Korea, these two Games were considered successful with regard to sustainability (since the IOC officially adopted sustainability). However, selecting case study countries like Brazil and Russia, whose political systems are not similar to that of the Republic of Korea, could also improve the credibility of this research.

8.3.2 Recommendations for Future Research

First, this study selected the Vancouver and London Olympics as case studies on sustainability as an Olympic legacy. In fact, there are not many Olympics that have focused on sustainability. In subsequent studies, more specific results could be obtained if more diverse cases were examined for the factors that influence sustainability and the background affected. Such studies could lead to appropriate legacy strategies, taking into account the background of future sports events when data is accumulated.

Second, future Olympics include the Tokyo 2020 Summer Olympics and the Beijing 2022 Winter Olympics. The three countries are located in Northeast Asia, with similar traits and ethnic backgrounds, but the differences are also very clear. The study of the sustainability of the Olympics leading to a series of Olympics in nearby provinces will be an opportunity to recognise the characteristics of East Asia's sustainability, which follows from its geographical and ethnic characteristics.

Finally, there is a temporal issue when studying legacy: more time is needed to assess whether the transport infrastructure, which was the ultimate goal of the PyeongChang Olympic Plan, has led to the region becoming a hub of winter sports and logistics.

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Appendices

Appendix 1. List of interviewees

No	Position	Note	Interview date
1	Former governor of Gangwon Province / Former president of the POCOG	Local government: Gangwon Province	08/05 2019
2	Secretary general and executive Vice President the POCOG / Deputy Minister	Central government	24/05 2019
3	Vice president of the games operations of the POCOG / Former secretary general	Central government	17/05 2019
4	Director budget & marketing of the Korean Sport & Olympic Committee	Central government	09/05 2019
5	Former Gangwon provincial manager for the PyeongChang Olympics / Head of peace regional development division of Gangwon Province	Local government: Gangwon Province	07/05 2019
6	Former Head of knowledge management team of the POCOG	Sport expert	11/05 2019
7	Manager of Olympic legacy team of the POCOG	Local government: Gangwon Province	16/05 2019
8	Manager of city relation team of the POCOG / Former manager sustainability of the POCOG	Sport expert	15/05 2019
9	Former Olympic venue manager in Gangwon Province	Local government: Gangwon Province	01/06 2019
10	Manager of Olympic legacy team of the Gangwon Province	Local government: Gangwon Province	03/06 2019

Appendix 2. List of semi-structured interview questions

1. How would you describe that bidding process of PyeongChang 2018 Winter Games in terms of sustainability?
2. How do you consider the sustainability plan for PyeongChang?
3. What strategies are used for sustainable legacy for the South Korea?
4. What is the most essential dimension of sustainability legacy plan among economy, society and environment?
5. What is the progress of the sustainable legacies of PyeongChang so far?
6. Can you explain to me what the problem about bidding process were?
7. What is the difference between bid book and actual realization so far?
8. What part of the sustainability plan in bid book was the most difficult to implement?
9. What's the relationship between the PyeongChang Organizing Committee and South Korea & local Government? or other organization?
10. What are the problems to realize the PyeongChang bidbook?
11. Could you suggest what strategies should be taken to realize sustainable legacy? If the next sports mega-events is held in South Korea?